RIVA ADVANCE HE

High efficiency condensing
combination & system boiler

A

energy saving recommended

2 year GUARANTEE

BRITISH GAS SERVICE LISTED

BIASI
COMFORT GENERATION

BIASI

WALL HUNG BOILERS

RIVA ADVANCE HE

The Riva Advance HE boiler is the new generation of High Efficiency condensing boilers from BIASI. Achieving the highest 'A' rating for energy efficiency, they are amongst the most efficient boilers available today providing you with:

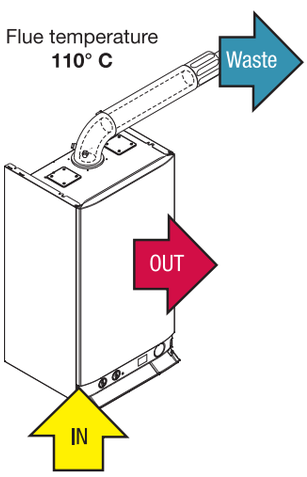
- Significant savings on fuel bills
- Lowest levels of polluting (NOx) emissions
- Superb performance and reliability

Replacing an older boiler with a new condensing boiler such as the Riva Advance could provide fuel savings of up to 30%. Further efficiencies can be achieved by installing energy saving controls such as the BIASI Outside Temperature Sensor.

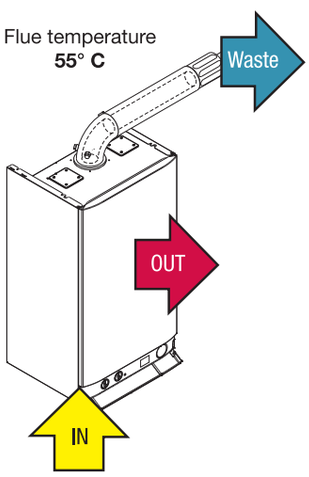
The Riva Advance combi models provide the highest levels of comfort and convenience producing a generous hot water flow of up to 14 litres per minute (at 35 deg rise).

THE CONDENSING PROCESS

High efficiency (HE) condensing boilers capture much more of the heat produced by the burned gas before it is discharged through the flue system to atmosphere. With a condensing boiler these flue gases are at a much lower temperature than those from a standard boiler as more of their energy is used to heat the water. During this combustion process condensation produces water which is captured and then drained automatically from the boiler via a pipe to a suitable drain point.



Traditional boiler,
SEDBUK D rated 78%



Riva Advance,
SEDBUK A rated 90,2%

A RATED EFFICIENCY

Changes to the UK Building Regulations in April 2005 made it compulsory that all new and replacement boilers installed have to be high efficiency condensing boilers.

The Riva Advance achieves the highest 'A' rating (over 90%) on the SEDBUK scheme which is the efficiency rating scheme for all boilers available in the UK.

In addition the Advanced pre-mix combustion technology of Riva Advance ensures it conforms to the strictest standards for reducing polluting NOx and CO2 emissions giving further consideration to the environment.

TWO YEAR GUARANTEE

Riva Advance carries a full manufacturers warranty of TWO YEARS covering parts and labour. Our nationwide service network provides quick and efficient response should any problem arise.

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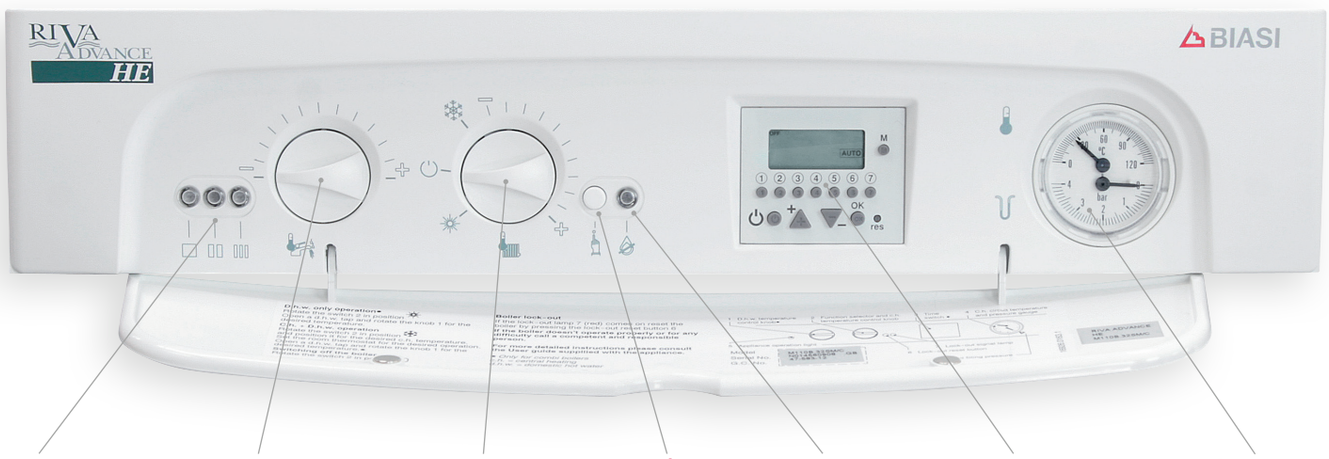
Advantages for the user

CONTROL PANEL



Appliance operation light

Domestic hot water temperature control knob

Function selector and central heating temperature control knob

Lock-out reset button

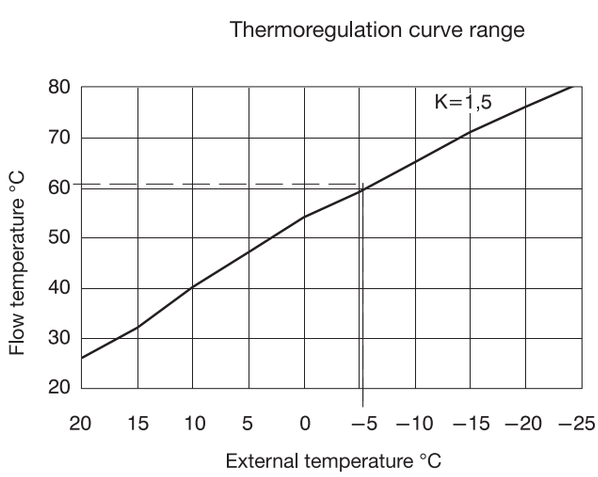
Lock-out signal lamp

Time switch

Central heating circuit temperature and pressure gauge

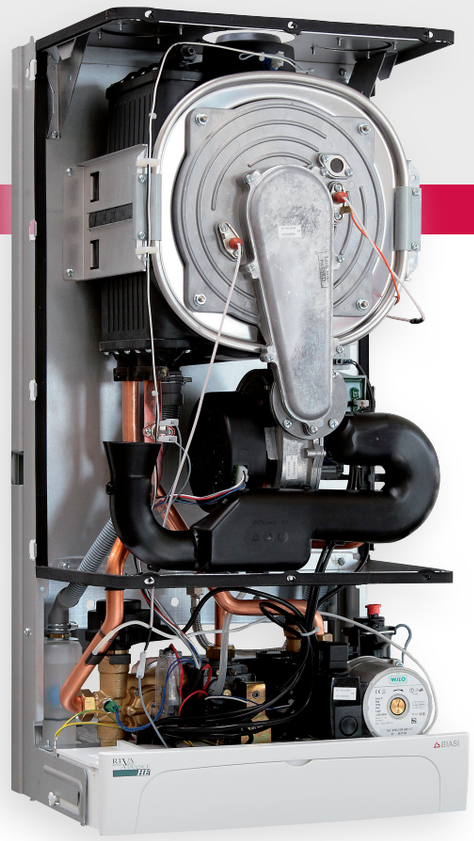
THERMOREGULATION

Thanks to the Outside Temperature Sensor (optional) which can be connected to the boiler Riva Advance is able to automatically regulate the temperature of the water in your heating system in response to changes in the outside air temperature and weather. This provides further savings on fuel as well as ensuring optimum comfort levels.



BIASI

RIVA ADVANCE HE

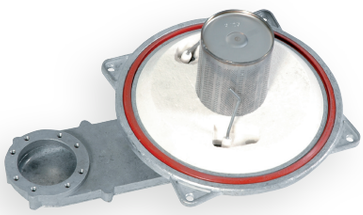


CONDENSING HEAT EXCHANGER IN STAINLESS STEEL

At the heart of Riva Advance is a condensing heat exchanger made from corrosion resistant stainless steel of 0.8 mm thickness ensuring long life and reliability. This proven technology is used in over 1 million boilers every year.

STAINLEES STEEL PRE-MIX BURNER

The advanced electronic control constantly monitors the correct ratio of gas and air that is required for combustion at the stainless steel burner cone. By reacting to the demand a high efficiency is maintained and polluting emissions are kept to a minimum.



TECHNICAL FEATURES

Compliant with all current UK Building Regulations

'A' Rating for efficiency in SEDBUK scheme

Fully modulating burner in both central heating and hot water modes maintaining output within +- 1deg C

Simple built-in controls designed for easy use with instructions on fold down panel.

Advanced electronic control board providing:

- Electronic flame ignition
- Adjustable re-ignition sequence
- Circulation pump control
- Anti-jamming mode for pump and diverter valve during periods of in-operation.
- Fault self-diagnostic indication via 3 LED lights to aid maintenance
- Frost protection system to prevent freezing when installed in vulnerable areas e.g. garage or roof space
- Flue function and monitoring

Automatic by-pass built in to protect the boiler if a low flow rate is present in system (eg all radiator valves shut)

Radio disturbance protection from possible interference by external radio frequencies

Magnetic hot water demand switch for long and maintenance-free life

Heating circuit flow switch preventing ignition if system lacks water

Easily accessible electrical connection point

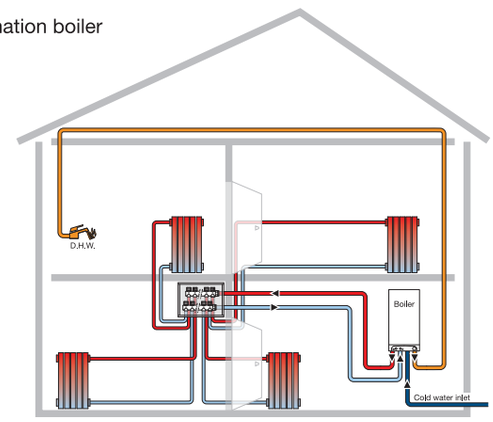
Aerobic exercise sequence preventing any seizure of motorised components by exercising them during any 24 hour period without a demand for heating or hot water.

ON-BOARD SIPHON PROTECTION

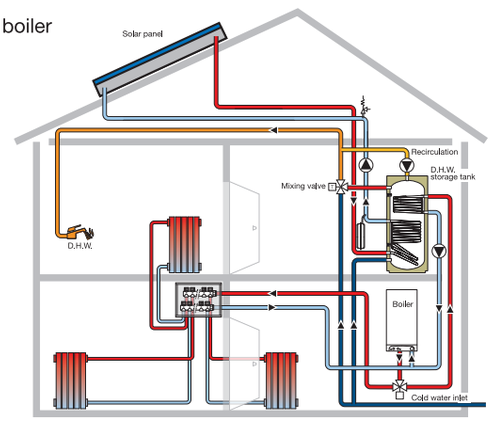
Water produced by condensation during the combustion process is drained from the boiler through a siphonic safety trap. This device prevents any possible leakage of flue products by locking the boiler should a fault occur. Further protection is provided by a special ball which blocks the drain should no liquid be present.

Technical features

Combination boiler



System boiler



* Combi model only

WHY CHOOSE A BIASI COMBI OR SYSTEM BOILER?

Unlike a conventional domestic central heating and hot water system, a combi boiler heats water taken directly from the cold mains - but only as you use it. It does not need a tank or a cylinder to store hot water.

Riva Advance in combi version is a compact boiler that

- Saves space (it is a compact unit for central heating and domestic hot water);
- Saves on hot water costs;
- Delivers hot water through the taps or shower at mains pressure (a pump is not required);
- Saves money on installation time and costs;
- Quick and easy installation (no tank required).

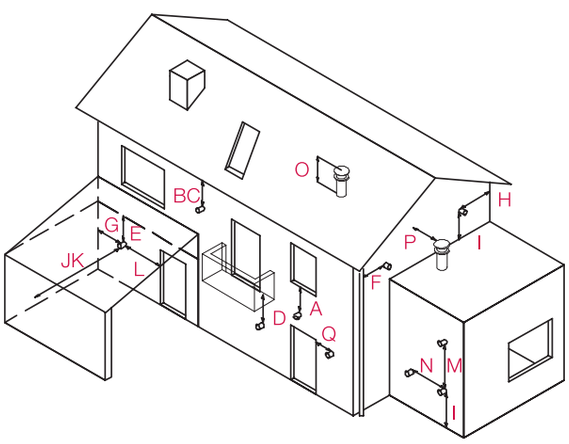
Combination boilers are very successfully in UK homes. In fact they account for around 75% of all boilers installed.

System boilers are like traditional boilers producing heat, which can be distributed by a pipe work circuit to radiators for central heating, and a domestic hot water cylinder for all household hot water needs. They are therefore ideal for replacing existing boilers.

HOT WATER HEAT EXCHANGER IN STAINLESS STEEL*

Riva Advance features a plate heat exchanger which responds rapidly to hot water demands providing up to 14 litres per minute (Advance 32). Constructed in corrosion resistant stainless steel, long life and reliability are ensured.

FLUE CLEARANCE REQUIREMENTS



*Wherever practicable to do so, the flue should be extended beyond the perimeter of the balcony.
**Consideration should be given to adding protection against condensate to the adjacent structure.

CLEARANCE REQUIREMENTS		mm
A	Directly below a window or other opening	300
B	Below gutters, soil pipes or drain pipes	75
C	Below eaves	200
D	Below balconies*	600
E	Below car port roof	NO
F	From vertical drain pipes and soil pipes	150
G	From internal corners**	450
H	From external corners	300
I	Above ground or balcony level	300
J	From a surface facing a terminal	600
K	From a terminal facing a terminal	1200
L	From an opening in the car port (e.g. door, window) into dwelling	NO
M	Vertically from a terminal in the same wall	1500
N	Horizontally from a terminal in the same wall	300
O	Above the roof pitch with roof slope less than or equal to 30°	350
	Above the roof pitch with roof slope more than 30°	600
P	From wall face	600
Q	From, above or to side of an opening	300

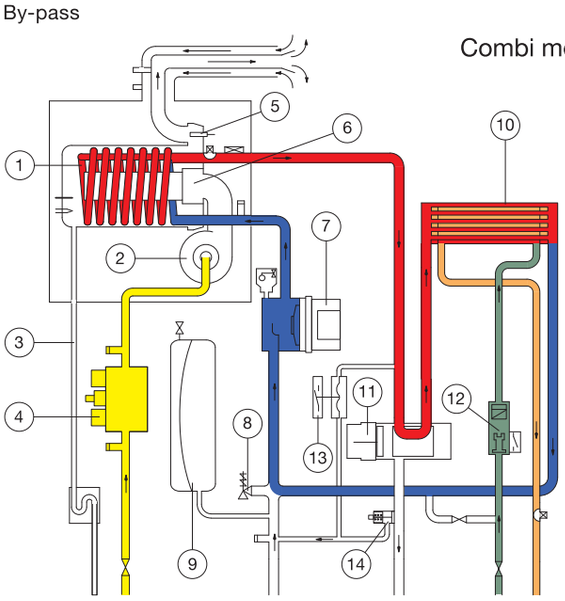
BIASI

RIVA ADVANCE HE

HYDRAULIC SCHEME

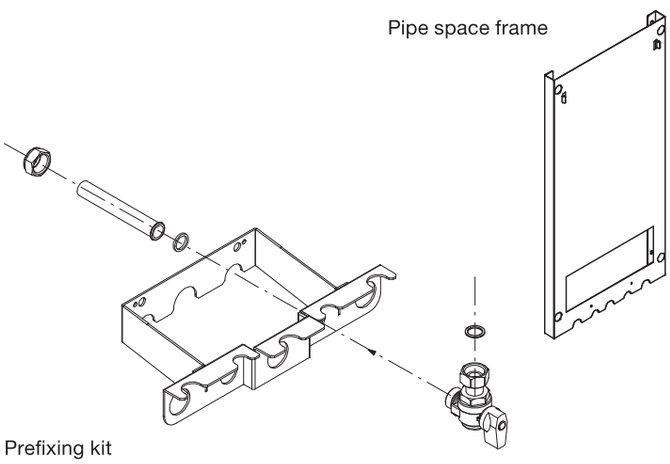
Condensing heat exchanger
Fan
Drain for condensate
Gas valve
Flue sensor
Premix burner
Pump
Safety valve
Expansion vessel
Plate heat exchanger (not system model)
3 way diverter valve (not system model)
Dhw flow switch (not system model)
Primary flow switch
By-pass

Combi model



OPTIONALS

Pipe space frame

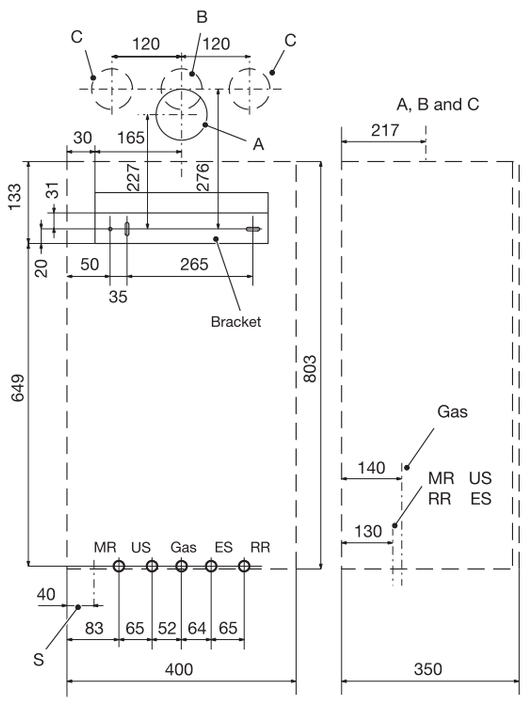


Prefixing kit

FIXING HOLES & CONNECTION PIPES POSITION

A - air intake / flue outlet pipe (co-axial)
B - flue outlet pipe ø 80 mm (twin kit)
C - air intake pipe ø 80 mm (twin kit)
S - Condensate drain connection area
MR - C.h. flow
US - D.h.w. outlet
ES - Cold water inlet
RR - C.h. return

A siphon is fitted within the boiler to collect condensate liquid from the condensing heat exchanger.



All dimensions in mm.

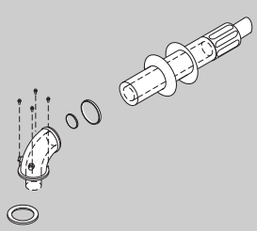
RIVA ADVANCE HE		Combi e system 24	Combi 32
Height	mm	803	803
Width	mm	400	400
Depth	mm	350	350
Weight	kg	44.5	45
C/H Flow & Return connections	mm	22	22
Gas inlet connections	mm	22	22
DHW Inlet & Outlet connections	mm	15	15
Condensate drain (plastic)	mm	25	25

Flueing options

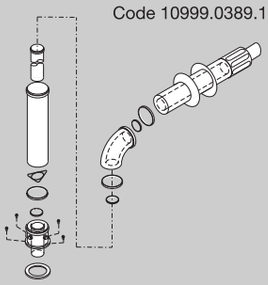
FLUEING OPTIONS AND ACCESSORIES

COAXIAL KIT

Horizontal coaxial flue kit
Ø 60 / 100 mm
Code 10999.0387.1



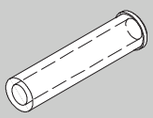
Coaxial flue kit with vertical extension
Code 10999.0389.1



Coaxial 90° elbow
Ø 60 / 100 mm
Code 10999.0390.1

Coaxial 45° elbow
Ø 60 / 100 mm
Code 10999.0391.1

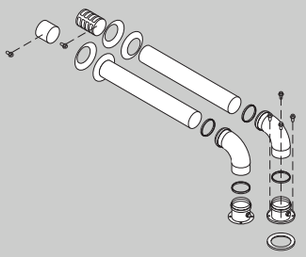
Extension
Ø 60 / 100 mm
Code 10999.0388.1



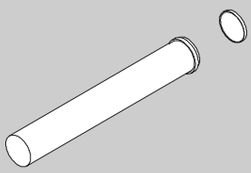
Max flue length	10.0 m*
Min flue length	0.3 m*
90°	1.0 m E.L.
45°	0.5 m E.L.

TWIN KIT

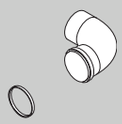
Twin kit Ø 80 mm
Code 10999.0393.1



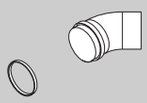
Extension
Ø 80 mm
Code 10999.0394.1



90° elbow FM Ø 80 mm
Code 10999.0395.1



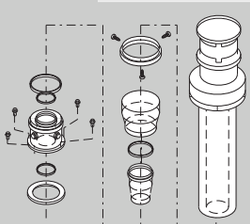
45° elbow FM Ø 80 mm
Code 10999.0396.1



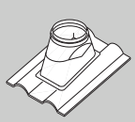
Total combined length possible	max 40 m
	min 1.0 m
90°	1.65 m E.L.
45°	0.90 m E.L.

ROOF KIT

Coaxial roof kit
Ø 80 / 125 mm
Code 10999.0392.1

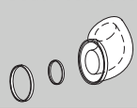


Pitched roof flashing plate for roof kit Ø 80 / 125 mm
Code 10999.252.1

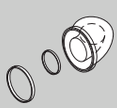


Flat roof flashing plate for roof kit Ø 80 / 125 mm
Code 10999.280.1

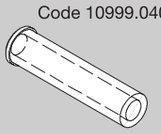
Coaxial 90° elbow
Ø 80 / 125 mm
Code 10999.0408.1



Coaxial 45° elbow
Ø 80 / 125 mm
Code 10999.0409.1



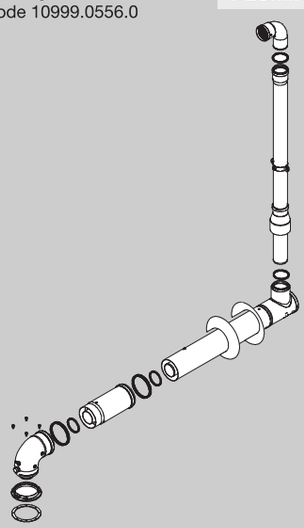
Extension
Ø 80 / 125 mm
Code 10999.0407.1



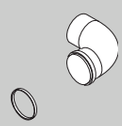
Max vertical flue length	10.0 m*
90°	1.0 m E.L.
45°	0.5 m E.L.

PLUMING KIT

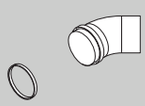
Pluming kit
Code 10999.0556.0



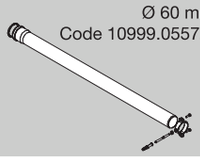
90° elbow FM Ø 60 mm
Code 10999.0558.0



45° elbow FM Ø 60 mm
Code 10999.0559.0



Extension
Ø 60 mm
Code 10999.0557.0



Max pluming kit length	15 m*
90°	0.85 m E.L. (Ø 60 mm)
45°	0.65 m E.L. (Ø 60 mm)
90°	1.00 m E.L. (Ø 60/100 mm)
45°	0.50 m E.L. (Ø 60/100 mm)

* Refer to specific boiler installation instructions for conformation of the flue arrangements

E.L. = Equivalent flue length

TECHNICAL DATA

Cod. 4824.0002.0000 - 50000109 - Rev. 00

RIVA ADVANCE HE		24 Combi	24 System	32 Combi
CENTRAL HEATING				
Maximum heat output	kW / BTU/h	27.3 / 93144	27.3 / 93144	35.7 / 121803
Seasonal efficiency rating - SEDBUK	%	90.2 (A)	90.2 (A)	90.0 (A)
Minimum / Maximum heating temperature	° C	25 / 85	25 / 85	25 / 85
Minimum / Maximum heating pressure	bar	0.3 / 2.5	0.3 / 2.5	0.3 / 2.5
DOMESTIC HOT WATER				
Flow rate at 35 deg rise	l/min	10.7	/	14.2
Minimum / Maximum DHW temperature	° C	35 / 55	/	35 / 55
Minimum / Maximum DHW pressure	bar	0.3 / 10	/	0.3 / 10
OTHER DATA				
Low NOx class 5 emissions		√	√	√
Electric protection	IP	X4D	X4D	X4D
LPG conversion kit available		√	√	√
Nominal voltage / Power consumption	V / W	230 / 108	230 / 108	230 / 125
Anti pluming flue kit available		√	√	√
Integral 7 day time control		√	/	√
Self diagnostic LED indicators		√	√	√
Full flame modulation +- 1 deg C		√	√	√
Built-in frost protection		√	√	√
Pipe space frame option for rear piping		Optional	Optional	Optional
Built-in system by-pass		√	√	√
Anti-seize component protection		√	√	√
Outside temperature sensor option		Optional	Optional	Optional
Anti-cycling control		√	√	√
Ventilation free compartment installation		√	√	√
Multi directional flueing options		√	√	√
Electronic flame ignition		√	√	√
Optional pre-piping kit available		Optional	Optional	Optional

Riva Advance HE carries a full manufacturers warranty of TWO YEARS covering parts and labour.

Biasi boilers are manufactured in one of europes most advanced facilities and over many years have earned a deserved reputation for quality and reliability.

Each boiler and its components is individually tested to exacting performance standards before leaving the factory.

Biasi UK provides nationwide customer service for fast and efficient response to after sales requests. Several extended warranty and servicing options are available. Genuine replacement parts are readily available from a network of country wide stockists.

This catalogue replaces the previous one.

In consistently improving its products, Biasi S.p.A. reserves the right to modify the data set out in this catalogue at any time and without any prior notification.

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