

Baxi Biomass

Carbon neutral heating solutions



BAXI

Solar thermal • Ground and Air source heat pumps • Biomass • Micro-CHP



Since the founding of the original company over 150 years ago the name Baxi has become synonymous with quality, reliability and innovation.

Today we are one of the largest and most successful manufacturers and distributors of heating and hot water solutions in Europe.

Baxi makes everything make sense.

Our product range includes a comprehensive range of high efficiency, renewable and low carbon solutions including:

- High efficiency boilers
- Biomass boilers
- Solar thermal
- Ground source heat pumps
- Air source heat pumps
- Micro-CHP technology
- Vented and unvented cylinders
- Flue gas heat recovery systems

Baxi is one of the largest and most successful manufacturers and distributors of heating and hot water solutions in Europe.

Biomass fuels, such as wood, logs and wood pellets, are classed as 'carbon neutral' because they absorb as much carbon when they are growing as they release when they are burnt.

Widely used throughout Europe, biomass boilers provide heating and hot water just like conventional systems.

Baxi biomass boilers are becoming increasingly popular in the UK because they provide a simple, one product solution for compliance with the most stringent environmental legislation, including the Code for Sustainable Homes.

Cleaner and less volatile than oil and LPG, Baxi biomass boilers are ideal for applications where there is no mains gas.

Baxi Bioflo

A stylish freestanding pellet fed boiler with automatic ignition suitable for siting in living areas, Baxi Bioflo automatically modulates and adjusts its own pellet burning capacity in line with demand for maximum efficiency.



Typical application

2, 3, or 4 bed homes, social or private housing. New build, refurbishments and self builds.

Baxi Multi-heat

An automatically fed pellet boiler with built-in thermostatic control and modulating fan, Baxi Multi-heat offers considerable cost and carbon savings compared to conventional coal, electric, LPG or oil boilers.



Typical application

Larger rural homes with space for a separate boiler room and pellet store. New build or refurbishment.

Baxi Solo Innova

A highly efficient log burning boiler available in a range of outputs, Baxi Solo Innova offers a total heating and hot water solution for properties of all sizes.



Typical application

Rural homes with access to a ready supply of logs or timber and suitable outbuilding. Refurbishment.

Baxi biomass solutions offer a simple, one product solution for compliance with the Code for Sustainable Homes.

Designed with the future in mind

The UK Government, Scottish Parliament and Welsh Assembly have all made a commitment to reduce energy consumption and carbon emissions in line with EU targets.

CfSH (England)

Private Sector
Level 3 Mandatory

Public Sector
Level 4 Mandatory

CESP

Up to 100 community schemes are to be set up, benefitting around 90,000 homes and delivering savings of nearly 2.9m tonnes of CO2 by December 2012



CfSH (England)

Private Sector
Voluntary
Public Sector
Level 3 Mandatory

Housing Act 2004 (Eng. & Wales)

Improve domestic energy efficiency by 20% by 2010

CERT

First Baxi Ecogen residential micro-CHP boiler launched April 2010

The Warm Homes and Energy Conservation Act

The Welsh Assembly Government aims to eradicate fuel poverty in vulnerable households by 2010

CfSH (England)

Private Sector
Level 4 Mandatory
Public Sector
Level 6 Mandatory

Code for Sustainable Homes (England)

Launched in late 2006, the Code for Sustainable Homes (CfSH) aims to drive forward a step change in building practices in England.

From Spring 2010, public sector homes must meet Code Level 4 whilst private developers need to satisfy Code Level 3 (Part L 2010) then Level 4 by 2013. All house builders will be required to comply with Level 6 of the Code and deliver Zero Carbon homes by 2016.

From October 2010 Code Level 3 is achieved by meeting the energy requirements set out in Part L (2010). Baxi biomass pellet fed boilers deliver up to 62% energy reduction.*

*Baxi biomass pellet fed boilers deliver up to 62% energy reduction, 18% more than required to meet Level 4 of the Code for Sustainable Homes**

*Based on SAP 2005 and Building Regulations Part L 2006

Heat & Energy Saving Strategy

All lofts and cavity walls will be insulated where practical by 2015

The Warm Homes and Energy Conservation Act

The Welsh Assembly Government aims to eradicate fuel poverty by 2018 via the Home Energy Efficiency Scheme

Heat & Energy Saving Strategy

Emissions from buildings to be approaching zero by 2050

Climate Change Act 2008

A legally binding target to cut greenhouse gas emissions by 80% by 2050

Climate Change Bill 2009 (Scotland)

Sets targets to reduce Scotland's greenhouse gas emissions by 2050

**CfSH (England)**

Private Sector
Level 6 Mandatory

Public Sector
Level 6 Mandatory

Climate Change Bill 2009 (Scotland)

Target of 42% emissions reduction by 2020

Climate Change Act

Reduction in emissions of 34% by 2020

Heat & Energy Saving Strategy

By 2030 all homes will have received a 'whole house' package, including cost-effective energy saving measures

EcoHomes (Scotland and Wales)

In Scotland and Wales, new and refurbished housing continues to be assessed against EcoHomes standards, a version of BREEAM specifically for homes.

Although this remains voluntary for private developers it is increasingly becoming part of the planning process with an EcoHomes assessment being a planning requirement for most Local Authorities.

Social housing is assessed against EcoHomes XB standards with assessments carried out at the design and procurement stage and again post construction.

The specification of a low carbon, high efficiency heating and hot water system can have a major impact on a property's EcoHomes rating.

In Scotland from October 2010, all new homes are required to be 30% more energy efficient than those built in 2007.

Baxi biomass pellet fed boilers exceed the EcoHomes standard by up to 32%.

Building Regulations

In England and Wales, Building Regulations apply to most new buildings and many alterations of existing buildings, whether domestic, commercial or industrial.

In April 2006 Part L of the regulations, which governs energy conservation, was revised to reflect the targets set by the Code for Sustainable Homes.

Building Regulations Part L

Replacement not involving fuel or energy switch.

Where the primary heating appliance is replaced by another using the same fuel, the seasonal efficiency of the new boiler should be:

- a. As stated in the relevant fuel based section of the Domestic Building Service Compliance Guide 2010 (biomass 75% nominal load)
- b. Not worse than two percentage points lower than the seasonal efficiency of the boiler being replaced. If the efficiency of the appliance to be replaced is not known, efficiency values may be taken from Table 4a or 4b of SAP 2009.

Replacement involving fuel switch.

If the new boiler uses a different fuel, the efficiency of the new appliance should be multiplied by the ratio of the CO₂ emission factor of the fuel used in the appliance being replaced to that of the fuel of the new appliance. This will enable the "carbon equivalent efficiency". The checks described in paragraphs a. and b. above should then be made. The CO₂ emission factor should be taken from Table 12 of SAP 2009.

Building regulations Part J.

Sizes of flues for biomass boilers have been added for clarification. Pellet burner or pellet boilers complying with the Clean Air Act require flue diameters as specified by the manufacturer and supported by calculations according to BS EN 13381-1:2002. This can be applied to an individual installation or manufacturers can provide pre-calculated designs.

Under the Clean Air Act 1993 Local Authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

Exempt appliances are appliances (ovens, wood burners, boilers and stoves) which have been exempted by Statutory Instruments (Orders) under the Clean Air Act 1993.

These appliances have passed tests to confirm that they are capable of burning an unauthorised or inherently smoky solid fuel without emitting smoke.

Carbon monoxide alarms.

Where a new or replacement solid fuel appliance is installed, a carbon monoxide alarm should be provided in the room where the appliance is located.

A carbon monoxide alarm need not be provided for solid biomass burning appliances that are room sealed and where the combustion chamber cannot be accessed by the user without the need for a tool.

Carbon monoxide alarms should be in accordance with BSEN 50291:2001 and be powered by a battery designed to operate for the working life of the alarm.

The alarm should incorporate a warning device to alert users when the working life of the alarm is due to pass.

The carbon monoxide alarm should be located:

- a. On the ceiling at least 300mm from any wall or, if it is located on a wall, as high up as possible (above any doors and windows) but not within 150mm of the ceiling;
- and
- b. between 1m and 3m horizontally from the appliance.

An approved Carbon Monoxide sensor can be ordered at the same time as a Baxi appliance.

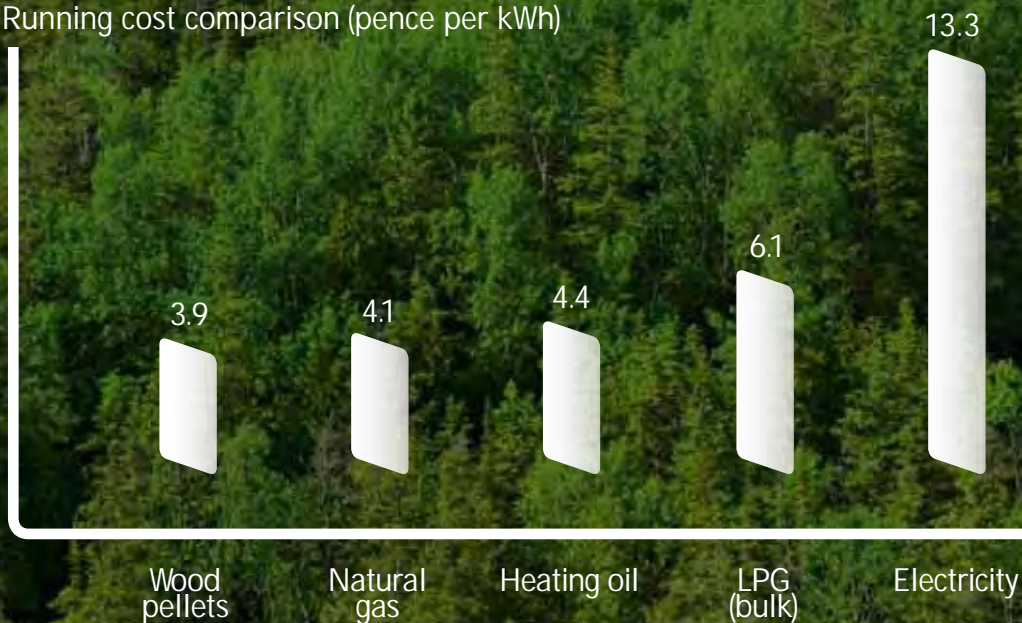
Baxi Bioflo is certified for use in Clean Air Zones.

Running Costs

The typical cost per unit of fuel energy of wood pellets (3.9p/kWh) is lower than that of both heating oil (4.4p/kWh) and bulk LPG (6.1p/kWh).

Source: DEFRA

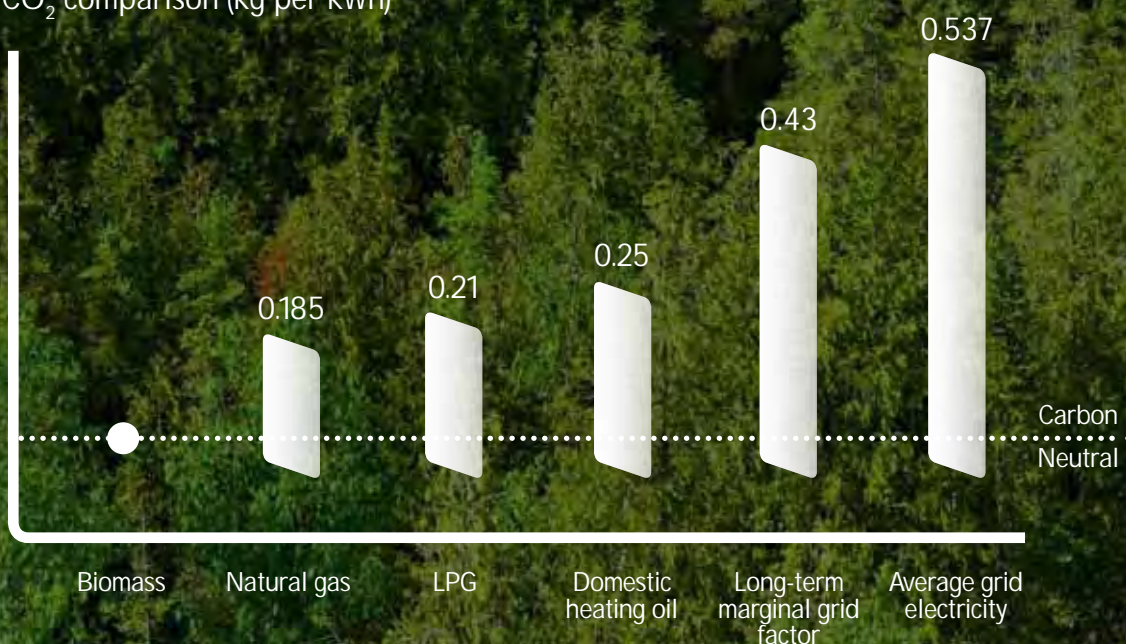
Running cost comparison (pence per kWh)



CO₂ emissions

Biomass is the only carbon neutral heating and hot water solution available.

CO₂ comparison (kg per kWh)



Source: Biomass Energy Centre

Standard Assessment Procedure (SAP)

From Spring 2010, public sector homes built in England must meet Level 4 of the Code for Sustainable Homes. Private developers need to satisfy Level 4 by 2013.

To achieve this an energy reduction of 25% is required against Building Regulations (Part L 2010).

Baxi biomass pellet burning boilers deliver a 62% energy reduction, providing a simple, one product solution for compliance with Code Level 4.

Energy performance is assessed using SAP (Standard Assessment Procedure) calculations to arrive at a predicted Dwelling Emission Rate (DER) and a Target Emission Rate (TER). These calculations are used to measure a percentage reduction in carbon emissions compared with Building Regulations (Part L 2006).

Option 1*

2 bed house Baxi Bioflo with Megaflo Eco Indirect Cylinder (145 litre)



Option 2*

3 bed house Baxi Bioflo with Megaflo Eco Indirect Cylinder (210 litre)



Option 3*

4 bed house Baxi Bioflo with Megaflo Eco Indirect Cylinder (210 litre)



Baxi Bioflo surpasses the energy saving requirement of Level 4 of the Code for Sustainable Homes with no additional improvements to the building fabric over Part L 2010.

Renewable Heat Incentive Scheme

Heat generated from renewable sources accounts for approximately 1% of total heat demand – this will need to rise to as much as 12% to hit the UK's EU renewable energy target.

In February 2010 the Department of Energy and Climate Change (DECC) announced plans to introduce a financial incentive scheme to encourage greater use of low carbon heating technologies.

Based on these plans from April 2011 households with a biomass heating system will receive

9p per kWh* of heat generated, in a similar manner to Feed-in Tariffs for micro generation.

To qualify both installers and equipment must be certified under the Microgeneration Certification Scheme (MCS).

Typical annual fuel requirement

(space and hot water heating)

2 bed terraced

11500 kWh

Based on 9p/kWh this equates to £1,035

3 bed semi

15600 kWh

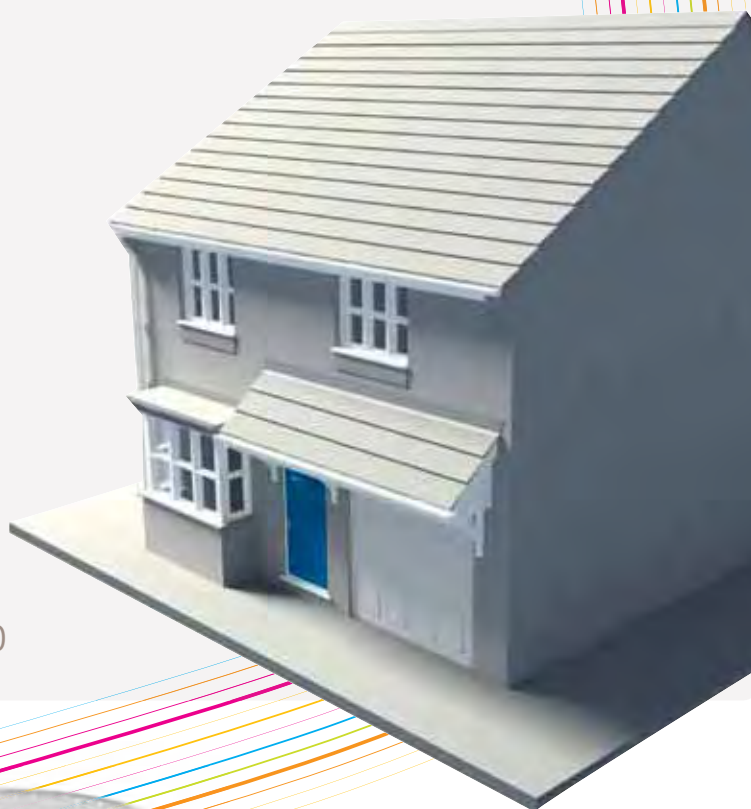
Based on 9p/kWh this equates to £1,404

4 bed detached

23000 kWh

Based on 9p/kWh this equates to £2,070

Based on 18 GJ/tonne
* correct at time of print



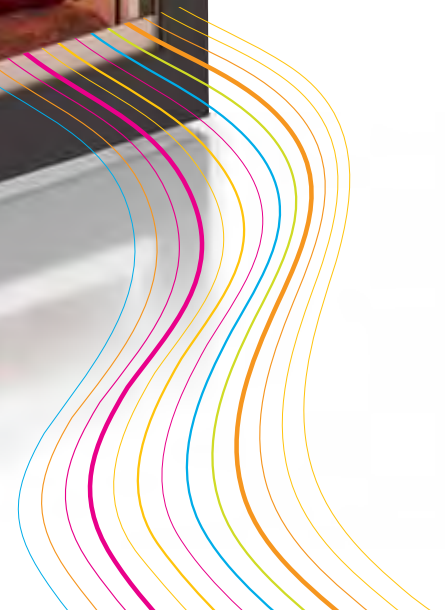
Households with a biomass heating system may receive 9p per kWh of heat generated from April 2011.*



Good quality wood pellets have a higher calorific power (4.9 kW/kg) than timber (4.4 kW/kg).



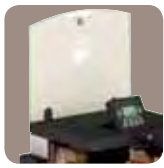
- A** Pellet loading door
- B** Fuel storage compartment
- C** Intelligent feed system
- D** Combustion chamber
- E** Automated ash compartment



Baxi Bioflo™

One of the best-selling pellet burning system boilers in Europe, Baxi Bioflo is a new kind of biomass boiler. Compact and stylish it is equally at home in living areas as it is in traditional 'out of sight' boiler locations.

94% efficient, it is a highly attractive alternative to conventional off-gas solutions, such as oil and LPG, offering clean, sustainable, 'carbon neutral' heating and hot water all year round.



How it works

Baxi Bioflo is a manual feed boiler. Pellets are fed into a fuel hopper on the top of the boiler and stored in 34kg compartment at the rear.



The boiler automatically fires when the control system signals a heating requirement and pellets are released into the combustion chamber.



Once even combustion is established, the system automatically switches to modulation mode during which output varies between 100% and 30 % (12kW - 3.8kW) for maximum efficiency.



An intelligent internal feed system monitors fuel consumption and drip feeds pellets from the storage compartment into the combustion chamber as and when required.



Water heated in the boiler is transferred to the radiator system for heating and to a separate unvented cylinder for hot water.



An alert indicator (light) appears on the control panel when fuel needs topping up. In typical conditions the fuel supply will need to be replenished every 3 to 4 days.

Pellets

Wood pellets are manufactured by hot-extruding compressed sawdust, which is produced during the working of natural dried wood. Lignin contained in the wood bonds the sawdust so there is no need for glues or binders.

Not all pellets are produced to the same high quality, therefore Baxi insists on using the highest quality pellets.

The recognised standard of quality in the UK for wood pellets is DINplus this ensures the following qualities:

- Calorific power: 4.9 kW/kg
- Water content: max 10% of weight
- Percentage of ashes: max 0.5% of weight
- Diameter: 5 to 8 mm
- Length: max 30mm
- Contents: 100% untreated wood, with no added bonding substances (bark percentage 5% max).

The recommended suppliers of DINplus pellets are:



For a local distribution outlet please telephone +44 (0)28 6641 1001. An interactive map of local distributors is available at: www.brites.eu

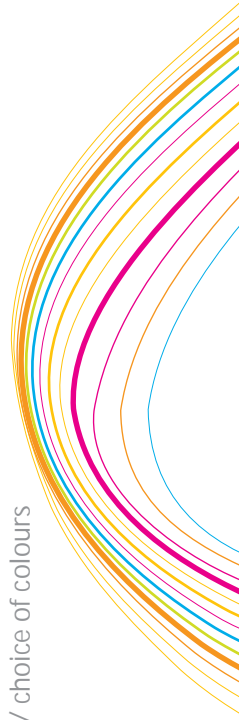
Output automatically modulates between 12kW - 3.8kW for maximum efficiency.



Makes sense for specifiers, installers and end users

A simple, one product solution for compliance with the most stringent environmental legislation, including the Code for Sustainable Homes (Code 4), Baxi Bioflo is simple to install, service and maintain. It makes an attractive feature in living areas, it's easy to operate and it's economical to run.

		Features											
		Carbon neutral solution	MCS certified	Modulating output 3.8-12kW	Thermo-probe temperature control	Automatic pellet feed	Integral control module & relay box	Automatic ignition	Integral safety features as standard	Sealed system	Air kit (sealed room applications)	Front and side service access	Onsite commissioning by heateam
Benefits For Specifiers	Saves energy	○		○				○					○
	Increases efficiency			○	○								○
	Reduces CO ₂ emissions			○									○
	Exceeds CfSH Level 4 (SAP 62%)	○											
	Compatible with other renewable technologies									○			
	Suitable for siting in living areas									○	○		○
For Installers	Suitable for Clean Air Zones	○						○					
	Reduces installation costs						○	○	○	○		○	
	Simplifies maintenance / servicing				○		○				○		
For End Users	Prolongs service life				○							○	
	Saves energy	○		○				○				○	
	Simple to use				○	○	○						
	Access to funding		○										
	Ensures safe operation								○		○		○
	Reduces life time costs			○	○	○							○
	Minimises fill-up time				○								





Compact and stylish, Baxi Bioflo is a highly attractive alternative to oil and solid fuel.

Baxi Bioflo

Baxi Multi-heat

Baxi Solo Innova

Support

Installation

Baxi Bioflo is designed for installation within the dwelling. It must be floor mounted on a base that is able to accept the weight of the appliance when full of water and also its chimney (if the chimney is not independently supported). The base must be non-combustible and of size and construction that is in accordance with current Building Regulations.

The product is a fully featured central heating system so no second heat generator is required. However, it can be combined with alternative heat generators such as solar thermal.

All the necessary hydraulic components for a heating circuit, as well as hot water preparation, are integrated within the boiler.

Ventilation

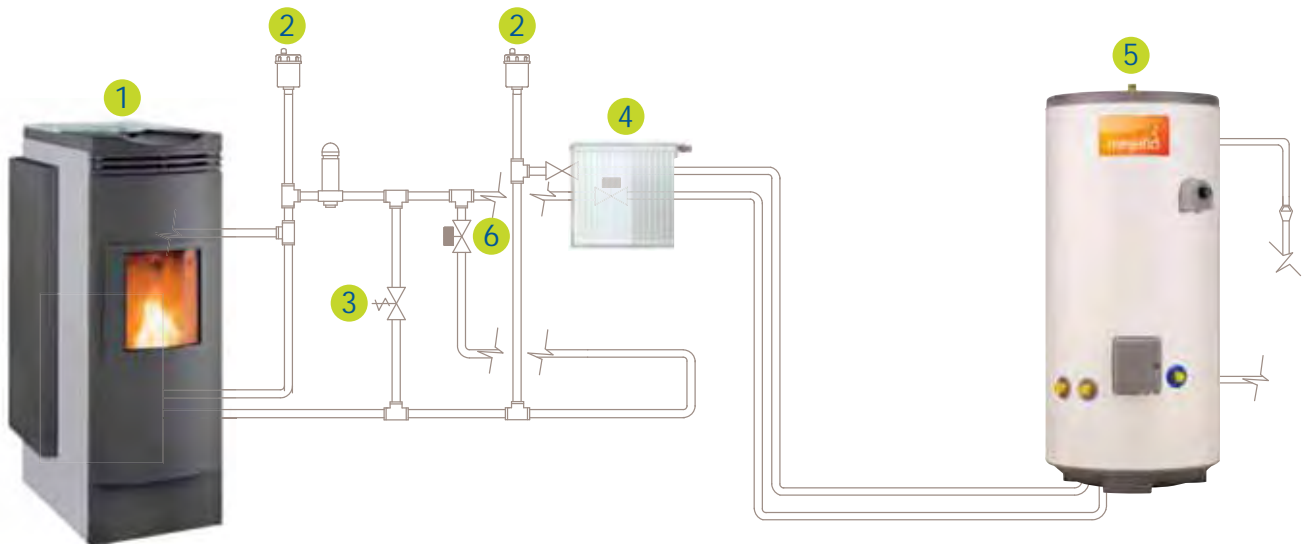
The outlet from the chimney should be above the roof of the building. The boiler must not be installed into a chimney that serves any other

heating appliance or sited in a room where an extractor or ceiling/paddle fan is fitted.

The chimney height must be sufficient to ensure an adequate draught to clear the products of combustion and prevent smoke emission into the room. A carbon monoxide sensor must be fitted in the same room as the appliance and positioned in accordance with Building Regulations Part J.

To complete the installation shown below we recommend that Baxi Bioflo is installed with a Heatrae Sadia Megaflo cylinder.

Baxi Bioflo typical installation



- 1 Baxi Bioflo
- 2 Automatic air vent
- 3 Auto bypass valve
- 4 Heating circuit
- 5 Megaflo unvented hot water cylinder
- 6 System zone valve

* For further information please see the installation instructions.

Accessories

For maximum convenience Baxi Bioflo can be supplied with a secure, outdoor fuel storage bin so that the householder doesn't have to wait in for pellets to be delivered. 1080mm high, 1070mm wide and 820mm deep, this sturdy, all weather, lockable plastic container has the capacity to hold up to 650kg of bagged fuel (approx 2 months' supply). It is available in an unobtrusive shade of green and should be mounted on a hard-standing surface.



Technical Data

Description	Product Code
Baxi Bioflo 12kw (Granite)	720338301
Baxi Bioflo 12kw (Pearl)	720338401
Pellet storage bin	720338501
Carbon monoxide alarm	INP0027

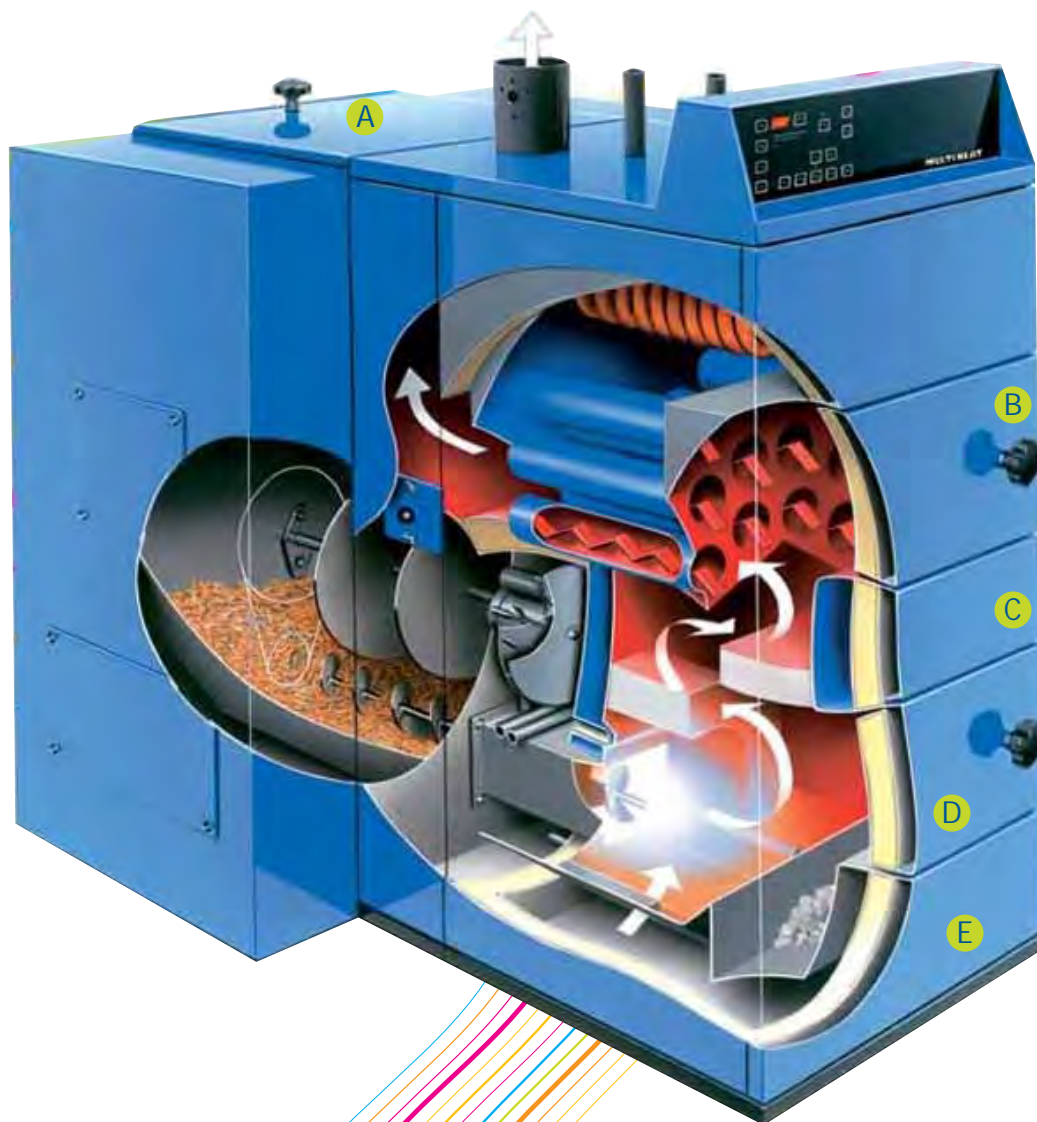
Bioflo	12kW	
Technical Data:		
Fuel		DINplus certified wood pellets
Total thermal output	kW	12
Thermal output for water	kW	3.8 - 10.4
Thermal output from room heater within boiler (no heat shield)	kW	0.6 - 1.6
Thermal output from room heater within boiler (heat shield applied)	kW	0.3 - 1.1
Total gross efficiency	%	94.1
Flue gas connection (diameter)	mm	125
Flue gas temperature (full/part load)	°C	125/80
Installation Data:		
Weight	kg	218
Depth	mm	691
Width	mm	530
Height	mm	1230
Hopper volume	kg	37
Water volume (within boiler)	litre	30
Electrical Consumption:		
Maximum current consumption	Amps	5.8
Maximum ignition consumption	Watts	860
Heating Operation:		
Full load	Watts	50
Part load	Watts	33
Idle	Watts	8

An additional 2% SAP saving can be achieved through controls.

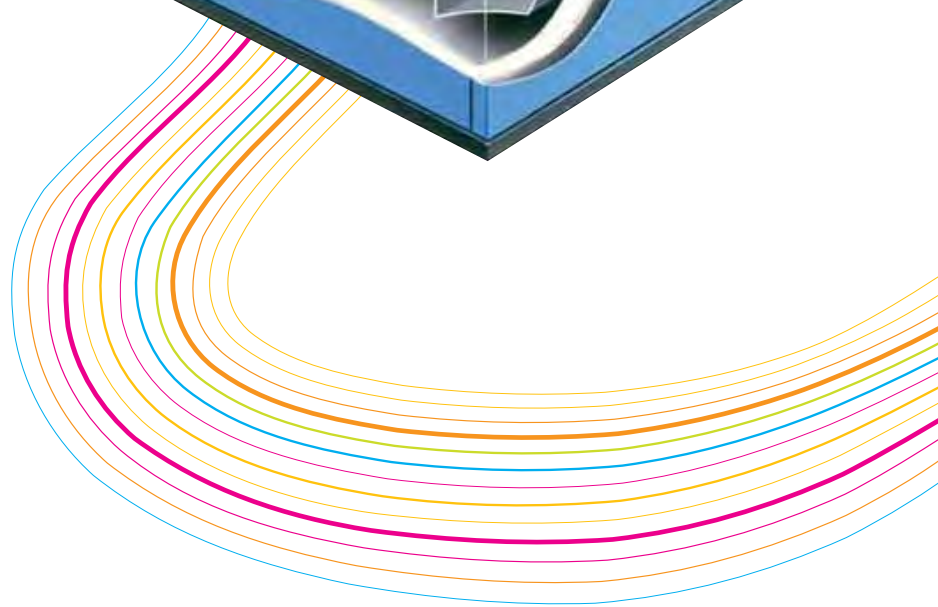
Is it for me?

Baxi Bioflo

Baxi Multi-heat



- A** Pellet loading door
- B** Fuel storage compartment
- C** Intelligent feed system
- D** Combustion chamber
- E** Automated ash compartment



Baxi Multi-heat™

Baxi Multi-heat is a highly efficient (90%) pellet burning boiler that is particularly suited to larger rural properties in off-gas areas.

Available in 15kW, 25kW and 43kW, it can be integrated with existing central heating systems in a similar way to conventional boilers, to provide a total heating and hot water solution.



How it works

Baxi Multi-heat is a manual feed boiler. Pellets are fed into a fuel hopper at the rear of the boiler.



When there is a heat demand, a motorised feed mechanism (auger) automatically feeds pellets into the combustion chamber.



A built-in modulating fan delivers the precise amount of primary air required to ensure the boiler operates at maximum efficiency.



The temperature is regulated by a thermostatic controller in conjunction with the modulating fan.

When the set temperature is close to being achieved, the controller starts the modulating fan and the auger reduces the fuel supply to ensure the required temperature is maintained using the minimum amount of fuel.

The boiler has 3 operating modes: full, reduced and slumber.

Key features and benefits:

Highly efficient (approx 90%):

Integral hopper provides automatic feed and modulates supply ensuring maximum efficiency.

Simple to install and maintain:

- Top flue location
- Reversible hopper and boiler doors
- Hopper and boiler supplied as one packaged unit
- 1 year parts and labour warranty

Easy to use:

Digital control provides continuous variable heat output.

Fuel:

The recommended suppliers of DIN $plus$ pellets are:



For a local distribution outlet please telephone +44 (0)28 6641 1001. An interactive map of local distributors is available at: www.brites.eu

Temperature is regulated by a thermostatic controller in conjunction with the modulating fan for maximum efficiency.

Baxi Multi-heat™

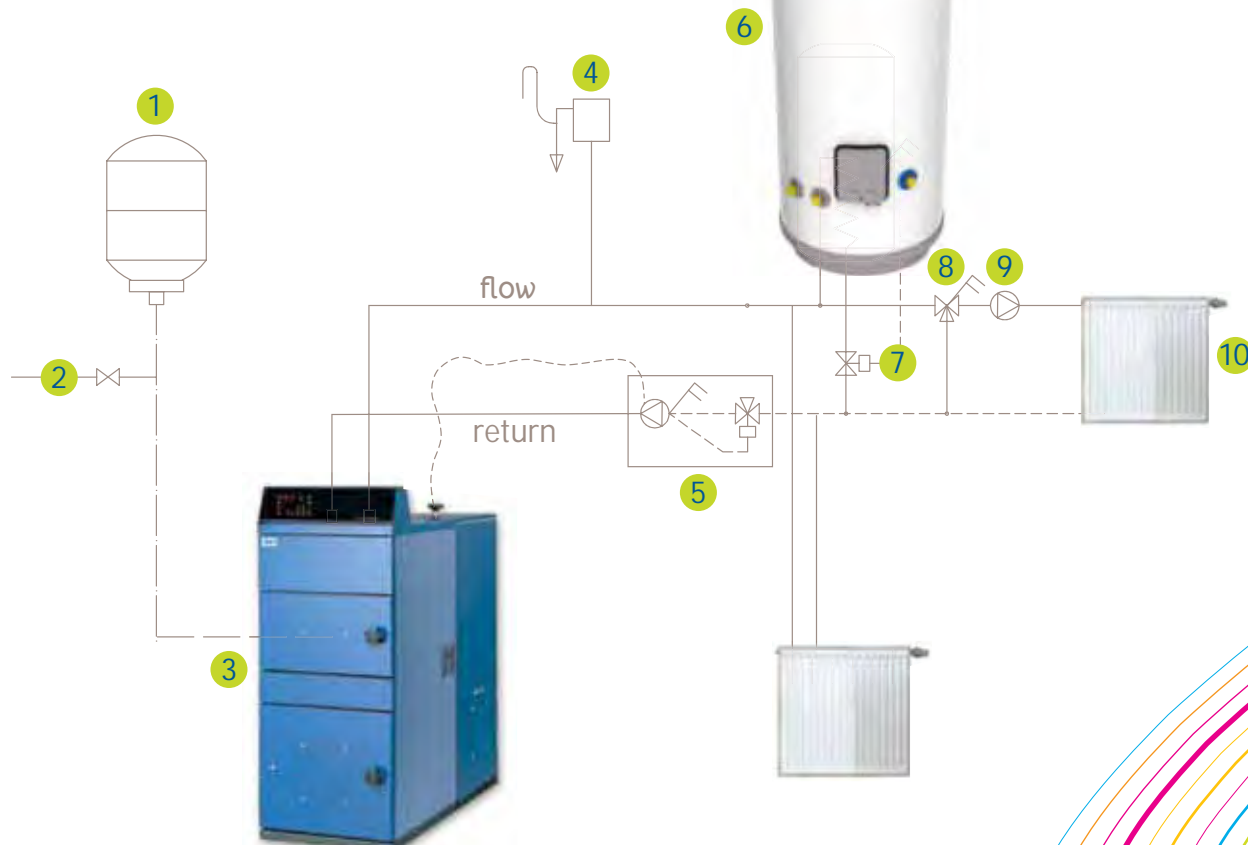
It is possible to install the Baxi Multi-heat with either an open vented or sealed system. Plus, as the Baxi Multi-heat is controllable it does not require the installation of a buffer vessel.

The system should incorporate an open radiator or towel rail to dissipate the standby heat output (0.5-1.0kW). For sealed systems the optional thermostatic valve is required.

To complete the installation shown below, a pumped blending valve is recommended.

Baxi Multi-heat must be installed in a room with a sufficient supply of fresh air for correct combustion. It is recommended that access is available to the front, back and one side of the boiler for servicing.*

Baxi Multi-heat typical installation



- | | | | |
|---|--|----|-------------------|
| 1 | 20 L pressure vessel | 6 | Megalife cylinder |
| 2 | Anti burnback mains water supply/check valve | 7 | Two port valve |
| 3 | Baxi Multi-heat boiler | 8 | Blending valve |
| 4 | Feed/expansion (steel tank) | 9 | CH pump |
| 5 | Pumped blending valve | 10 | Heating circuit |

* For further information please see the installation instructions.

Technical Data

Description	Output (kW)	Hopper volume (litres)	Product code
Multi-heat 1.5	15	200	5130898
Multi-heat 2.5	25	360	5130900
Multi-heat 4.0	43	600	5130904
Accessories:			
Thermostatic valve (required for sealed system installations)			5132050
4.0 bar manometer			5132053
Cleaning brush for hand drill			5132052
Pumped blending valve			5134675
Carbon monoxide alarm			INP0027

Multi-heat		Model 1.5	Model 2.5	Model 4.0
Technical Data:				
Output (nominal)	kW	15	25	43
Recommended standby output*	approx kW	0.5	0.8	1
Hopper door, reversible		Yes	Yes	Yes
Connection of flow return and expansion pipes	inches	1" BSP	1" BSP	1" BSP
Connection of additional safety sprinkler	inches	1/2	1/2	1/2
Electricity consumption (max)	kW	0.3	0.46	0.46
Electricity connection (Boiler)		230V - 50Hz	230V - 50Hz	230V - 50Hz
Operating temperature	°C	60-85	60-85	60-85
Fuel consumption at nominal output	kg/h	3.4	5.7	10
Test pressure	bar	4.0	4.0	4.0
Installation Data:				
Depth	mm	1435	1578	1693
Width	mm	504	600	1000**
Height	mm	1165	1475	1475
Hopper volume	litre	200	360	600
Height to flue	mm	1110	1455	1455
Flue external diameter	mm	130	150	150
Weight – empty	kg	340	530	680
Water contents	litre	50	1125	150

* Least recommended stand-by output (heat sink)

** Hopper width, boiler width is 600mm

It is possible to install the Multi-heat with either an open vented or sealed system.

Is it for me?

Baxi Bioflo

Baxi Multi-heat



- A** Pellet loading door
- B** Fuel storage compartment
- C** Intelligent feed system
- D** Combustion chamber
- E** Automated ash compartment



Baxi Solo Innova™

Ideal for customers with a ready supply of timber, Baxi Solo Innova boilers are available in 20kw, 32kw and 48kW outputs. Installed in conjunction with a Baxi buffer store, the system retains the heat from combustion to service the property with constant heat.

A carbon neutral alternative to LPG and oil fired systems, Baxi Solo Innova boilers are simple to install, easy to maintain and cost-effective to run.



How it works

Baxi Solo Innova is stacked with logs or wood and lit.

Combustion is regulated by a thermostatically controlled induced draught fan, which draws air into the flame tunnel and creates a partial vacuum in the combustion chamber, ensuring complete and efficient combustion.



Once the main burn is completed and the boiler temperature reduces the fan will automatically switch off.

The heat produced during combustion heats the water, which is then stored in buffer storage tanks.



The domestic heating system draws the heat from the buffer tanks as required.



When the temperature of the buffer storage tank(s) drops to approximately 45°C the system is ready for another combustion cycle.



Key features and benefits:

Highly efficient (approx 90%):

Thermostatically controlled induced draught fan regulates combustion saving fuel and reducing emissions.

Simple to install and maintain:

- Adjustable feet for ease of installation on uneven floors
- Slim line design for ease of transportation and siting
- 1 year parts and labour warranty.

Easy to use:

- Simple user-friendly controls
- Easy access for cleaning

Fuel:

Baxi Solo Innova is designed for highly efficient combustion of dry firewood with a moisture content of 15-25%. The best combustion and highest output are obtained by using dry firewood, sawn into lengths of 330mm or 500mm and split to a thickness of 100-150mm to suit the boiler's combustion chamber.

Baxi Solo Innova is up to 90% efficient.

Baxi Solo Innova™

Baxi Solo Innova has adjustable feet for ease of installation on uneven floors and is designed to fit through a standard doorway.

The boiler must be installed in a room with sufficient supply of fresh air for correct combustion and it is recommended that access is available to both the front, back and one side of the boiler for servicing.

Baxi Solo Innova typical installation



Baxi Solo Innova must always be installed with a suitable buffer storage tank(s) which can store at least the energy created in a single combustion chamber fill up. Fully insulated Baxi buffer tanks are available in 600 and 800 litre capacities and can be installed in multiples. It is recommended that 50 litres of buffer storage be installed for every kW of boiler output.

For example:
 32kW max output x 50 litres = 1600 litres buffer storage
 = 2 x 800 litre tanks
 (product code 5131045)

- 1 Solo Innova boiler
- 2 Pumped blending valve
- 3 Buffer tanks (No. & size to suit boiler output)
- 4 Feed/expansion
- 5 Megaflo cylinder
- 6 Grundfos alpha or similar pump
- 7 Blending valve
- 8 CH pump
- 9 Two port valve
- 10 Heating circuit

* For further information please see the installation instructions.

Technical Data

Description	Size	Output (kw)	Product Code
Solo Innova 20		20	5130917
Solo Innova 30		32	5130918
Solo Innova 50		48	5130919
Accessories:			
Thermostatic valve (required for sealed system installations)			5132050
Pumped blending valve			5132051
4.0 bar manometer			5132053
Cleaning brush for hand drill			5132052
Buffer storage tank	600-litre		5131044
Buffer storage tank	800-litre		5131045
Thermometer	0-120 degree		5132054
Carbon monoxide alarm			INP0027

Description		Type 20	Type 30	Type 50
Technical Data:				
Heat output kW	kW	20	32	48
Connection of flow, return and expansion	inches	1 1/4	1 1/4	1 1/4
Combustion chamber depth	mm	379	550	550
Electricity connection		230V-50Hz	230V-50Hz	230V-50Hz
Fuel door W x H	mm	350 x 300	350 x 300	350 x 300
Combustion chamber volume	litres	100	135	185
Dust in smoke	mg/MJ	21	23	26
CO in smoke	mg/MJ	195	185	198
Wood lengths	mm	330	500	500
Wood diameter, coniferous wood max.	mm	100	100	100
Wood diameter, beech, birch max.	mm	150	150	150
Test pressure, boiler	bar	4.5	4.5	4.5
Test pressure, spiral tube	bar	40	40	40
Installation Data:				
Depth	mm	907	1188	1188
Width	mm	584	584	694
Height	mm	1375	1375	1375
Height to flue	mm	1425	1425	1425
Flue pipe external diameter	mm	149	149	149
Weight - empty	kg	455	505	550
Water content	litres	100	130	180

50 litres of buffer storage should be installed for every kW of boiler output.

Support

Microgeneration Certification Scheme (MCS)

Qualification for the Renewable Heat Incentive Scheme and other financial assistance requires an MCS certificated product that has been fitted by an MCS qualified installer.

Baxi offers training that is recognised by HETAS as providing the skills required to achieve MCS installer accreditation.

Customer training

Baxi offers a four-day accredited training course with one of our training partners. The course is BPEC certified and covers theory, systems, product, application, installation and commissioning. The course can be used as evidence of training for installers applying for MCS accreditation. Please contact Baxi training on 0845 600 7402 for further details.

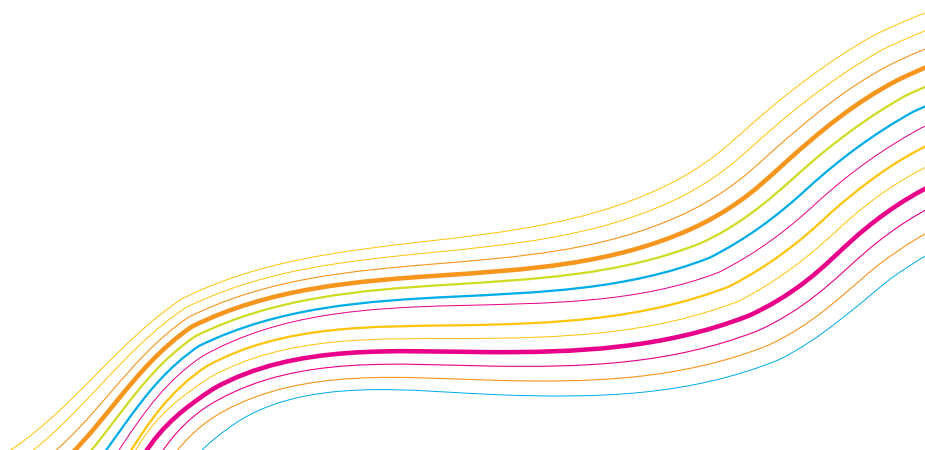
Design service



Our NewDesign team offers a dedicated service for developers, architects, local authorities and housing associations. We can tailor CAD designs and offer

advice on SAP and the Code for Sustainable Homes. We'll do all the calculations for you, no matter how complex they may be. We'll provide full details of all the options available and we'll work with you to deliver the most practical, cost-effective solution. With a dedicated team of experts working on your behalf, to meet the requirements for Code Levels 3 and 4, the Building Regulations and SAP calculations, you are assured of layouts, which comply fully with legislative requirements.

All designs are fully indemnified and custom made to suit each individual development. Our project database contains more than 40,000 house type designs and has already been tried and tested by some of the largest housing developers in the UK.



Warranty

Baxi biomass boilers come with a one year parts and labour warranty.

The warranty is subject to:

- 1) Registration of the product with heateam
- 2) An annual service
- 3) Installation by an installer who has successfully completed the Baxi biomass training course
- 4) Completion of a suitable commissioning document, which must be left on site for the householder (Benchmark)
- 5) Use of a suitable dirt separator and / or use of magnetic cleaning device is required on all applications

Full terms and conditions apply, contact heateam for details.

Our project database contains more than 40,000 house type designs.

Set up and check

heateam offers a set up and check service following installation of the product and filling of the heating circuit by the installer. The service includes adjustment of parameters and handover to the householder to ensure correct operation and optimum efficiency. This service is chargeable and can be arranged, via the telephone, directly with heateam. Simply call: 0844 871 1568. heateam can normally set up and check within 7 days of the request. Please note: This service is provided free of charge on the Baxi Bioflo.



Technical support

Our team of expert technical advisers is readily available. Mon to Fri 8am to 6pm/Sat 8.30am to 2pm.

Contact the team on 0844 871 1568. We offer advice on location, electrical supply, system design and controls.



Frequently Asked Questions

Why is biomass described as being carbon neutral?

Biomass fuels such as wood, logs and wood pellets are classed as 'carbon neutral' because they absorb as much carbon when they are growing as they release when they are burnt.

How do the running costs compare to using a fossil fuel?

The typical cost per unit of fuel energy of wood pellets (3.9p/kWh) is lower than that of heating oil (4.4p/kWh), bulk LPG (6.1p/kWh) and electricity (13.3p/kWh). For more information visit www.biomassenergycentre.org.uk/

Can Baxi biomass boilers be used in a Clean Air Zone?

Wood and wood pellets can only be burnt in Clean Air Zones in an exempt appliance. Baxi Bioflo is an exempt appliance, which can be used in Clean Air Zones burning wood pellets for which it has an exemption certificate.

Is planning permission required?

Planning permission is not required for Baxi biomass boilers.

Do Baxi biomass boilers comply with Building Regulations Part L1 & 2?

Yes. The 2010 Building Regulations require no worse than 75% nominal load.

Baxi biomass boilers have lower carbon emissions than a boiler.

How do you measure property design heat loss?

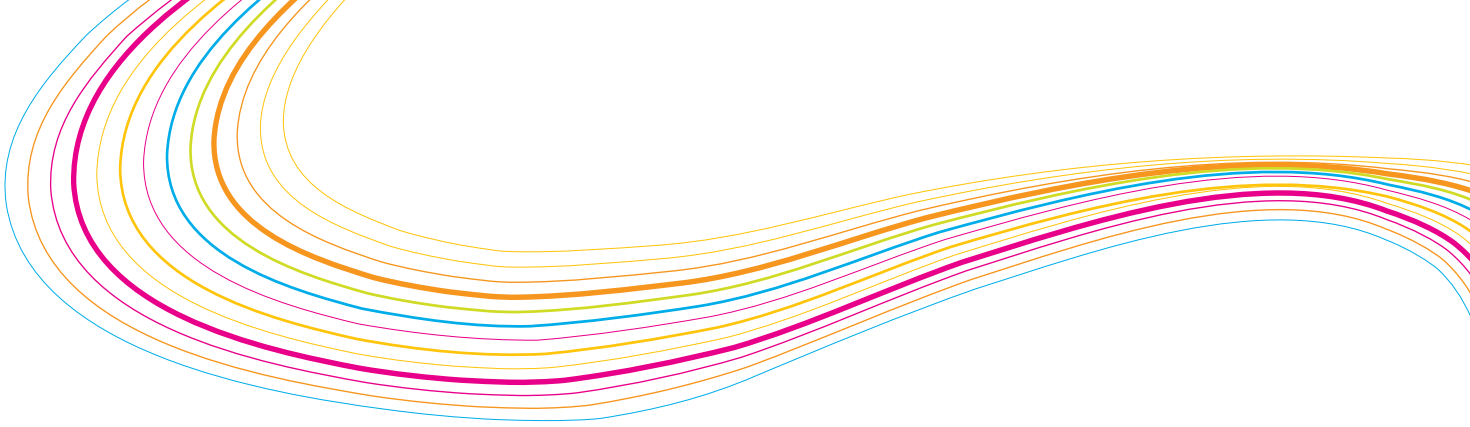
A suitable calculator can be found at www.sedbuk.com/whole_house.htm. The heat load calculation must be carried out based on information from drawings or collected during a site assessment. An example site assessment form is available at www.baxi.co.uk/docs

How are Baxi biomass boilers treated within SAP?

Biomass boilers are rewarded based on their efficiency, location within the dwelling and flue system.

What is the SAP benefit of Baxi biomass boilers?

For most new build houses, using a Baxi pellet boiler can deliver a 62% carbon reduction – exceeding CfSH Level 4.



*Trust Baxi to find
a solution that
works for you.*

Do the Baxi biomass boilers need registering?

No. A Building Regulations Certificate is issued to the householder to go with the Benchmark certificate.

Where can the Baxi biomass boilers be fitted?

Baxi Bioflo must be fitted indoors, floor mounted on a base that is able to bear the weight of the appliance when full of water.

Baxi Multi-heat and Baxi Solo Innova must be installed in a room with a sufficient supply of fresh air for correct combustion. It is recommended that access is available to the front, back and one side of the boiler for servicing.

How noisy are Baxi biomass boilers?

Baxi Bioflo noise pressure level is less than 36dBA at a distance greater than 1m directly in front of the appliance. This is 10dBA quieter than a conventional boiler.

What are the maintenance requirements?

Baxi biomass boilers should be serviced once a year by a competent engineer (HETAS registered with appropriate Baxi MCS training).

What technical support is available?

The Baxi NewDesign team provide expert advice on siting, sizing, SAP calculations, commissioning and installation. **heateam** delivers award-winning after sales support.





Baxi policy is one of continual improvement and development. The right to change specification and appearance without prior notice is reserved. The reproduction of colours is as accurate as photographic and printing processes allow. The consumer's statutory rights are not affected. e&oe



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