



Potterton Performa HE Range>>



# Performa HE. The highly efficient range you are already highly familiar with>>

Over the past 150 years, the Potterton name has become synonymous with top quality, high specification products. With well over 5 million installations to date, we're consistently leading the way with the most advanced range of energy efficient, user and environmentally friendly products on the market.

But although we're one of the heating industry's leading innovators, we've never believed in change for change's sake. So when we set out to create the Performa HE range, our primary aim was to retain many of the elements which made the Performa such a popular choice, whilst embracing the requirements of new high efficiency legislation. The result is a highly familiar range that performs with an even higher level of efficiency.

## Content>>

Introduction	page 2
Range overview	page 3
Combi range	page 4
System range	page 6
Flue details	page 8
Technical spec	page 10
Accessories	page 11
Contacts	page 12



## Potterton Performa. Now performing with high efficiency.

The Performa was renowned for its versatile range of flueing options and robust technology, combining elegant looks with long term reliability. And one look at the internal layout of the new Performa Combi HE and Performa System HE ranges will tell you that we've managed to retain the same general layout so highly regarded by installers.

## System or combi? The new Performa range offers the perfect solution.

The new Performa HE range consists of 3 combis and 4 system boilers, offering a wide and varied range of outputs to suit almost every installation requirement. All boilers feature the same basic architecture and technology platform as before, but with high efficiency modifications ingeniously designed for maximum installation simplicity. With Potterton, high efficiency doesn't have to be highly complicated.

## Unrivalled spares and service back up.

It's reassuring to know that when you specify any Performa HE boiler, you can call on the most highly efficient technical back-up and spares network in the business. With over 180 service engineers covering the whole of the UK, heateam is the largest service operation in the country, supported by dedicated teams of Call Centre support staff operating seven days a week, 363 days a year. And to make life even easier, a range of training courses is available to all engineers who install or service the Performa HE range. When it comes to high efficiency, nobody's more highly qualified than Potterton.



## HE Combination boilers



Performa  
24 Eco HE



Performa  
24i HE



Performa  
30 HE

## Key benefits>>

- Instantly recognisable architecture for ease of installation.
- Tried and tested Potterton technology.
- 3 combi models to cover a wide range of heating and hot water requirements.
- 4 system models to cover a wide range of heating requirements.
- Know one, know them all.
- Designed to meet the 2005 change in efficiency legislation.
- Backed by the best service network in the business.

## HE System boilers



Performa  
System 12 HE



Performa  
System 18 HE



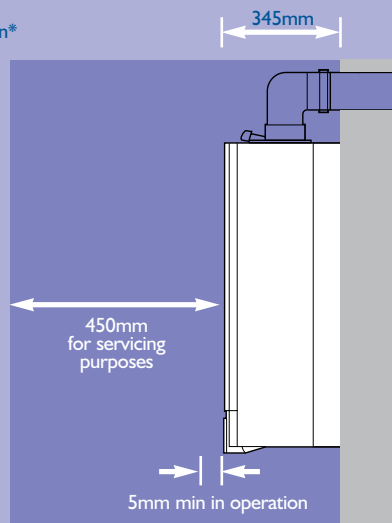
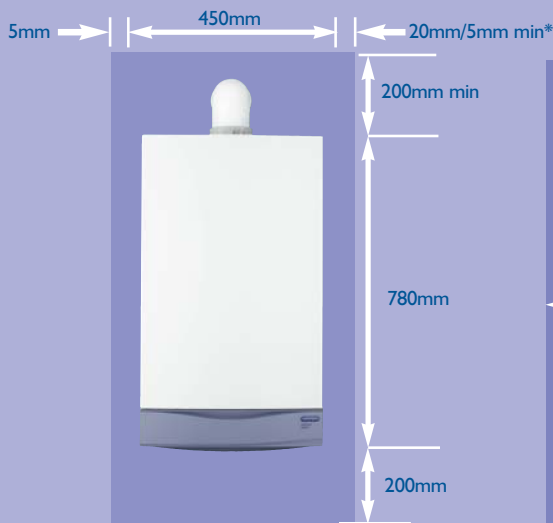
Performa  
System 24 HE



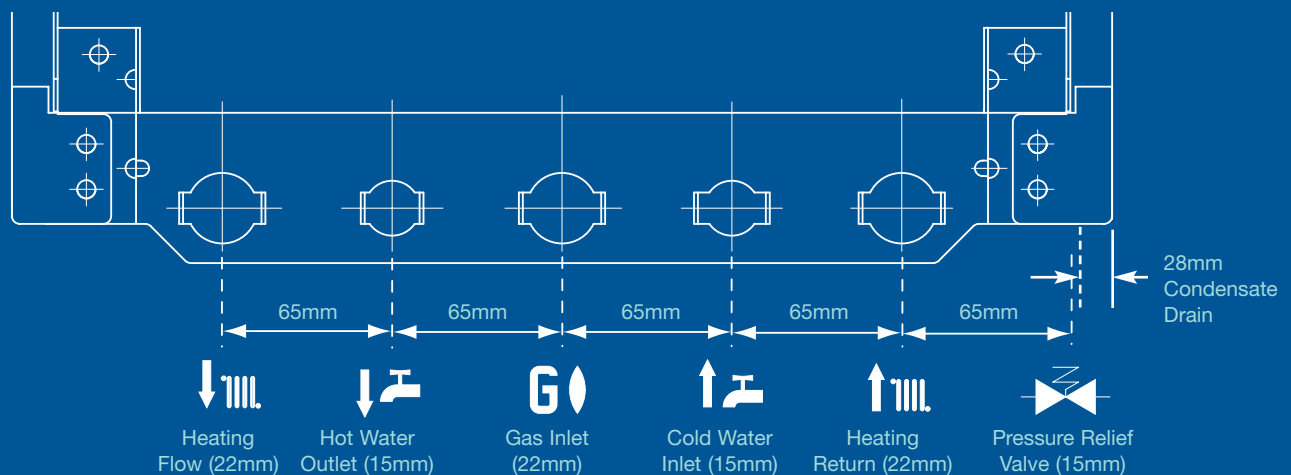
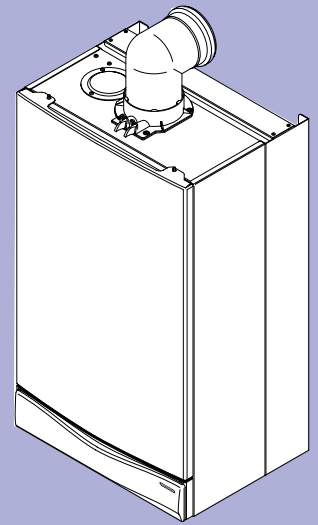
Performa  
System 28 HE

# Performa HE combination boiler range >>

Dimensions and minimum clearance mm



**\*NOTE:** The boiler can be operated with a clearance of 5mm at the right. This is also sufficient for routine maintenance. However a clearance of 20mm is required if it is necessary to remove the secondary heat exchanger. This should be considered when siting the appliance and in the event of any subsequent alterations in the area of installation



## The Performa 24 Eco HE

features a simple fascia panel incorporating status indicators and all controls. This 24 kW boiler is designed for smaller homes which corresponds to a domestic hot water flow of 9.8 litres per minute raised 35°C. It is quick and easy to install using a simple wall-fixing bracket.

- 25.2kW heating output (condensing) suitable for most domestic requirements.
- Provides domestic hot water at up to 9.8 litres per minute raised 35°C.
- Modulating output to maximise economy.
- Independent control of domestic hot water and heating temperature.
- Operating mode selector switch with reset.
- Three LED status indicators for simple control and diagnostic functions.
- 100mm concentric flue system (max 4m total length horizontal).
- 80mm twin flue system (max 12m total length vertical or 24m equivalent length).
- Optional integral timer.
- Optional LPG conversion kit.
- SEDBUK Band B.

## The Performa 24i HE

features a drop down door that conceals the control panel. The output to domestic hot water is 24kW which corresponds to a hot water flow rate of 9.8 litres per minute raised 35°C and output to central heating is 25.2kW (condensing). Near instantaneous hot water performance is facilitated by means of a compact integral storage vessel.

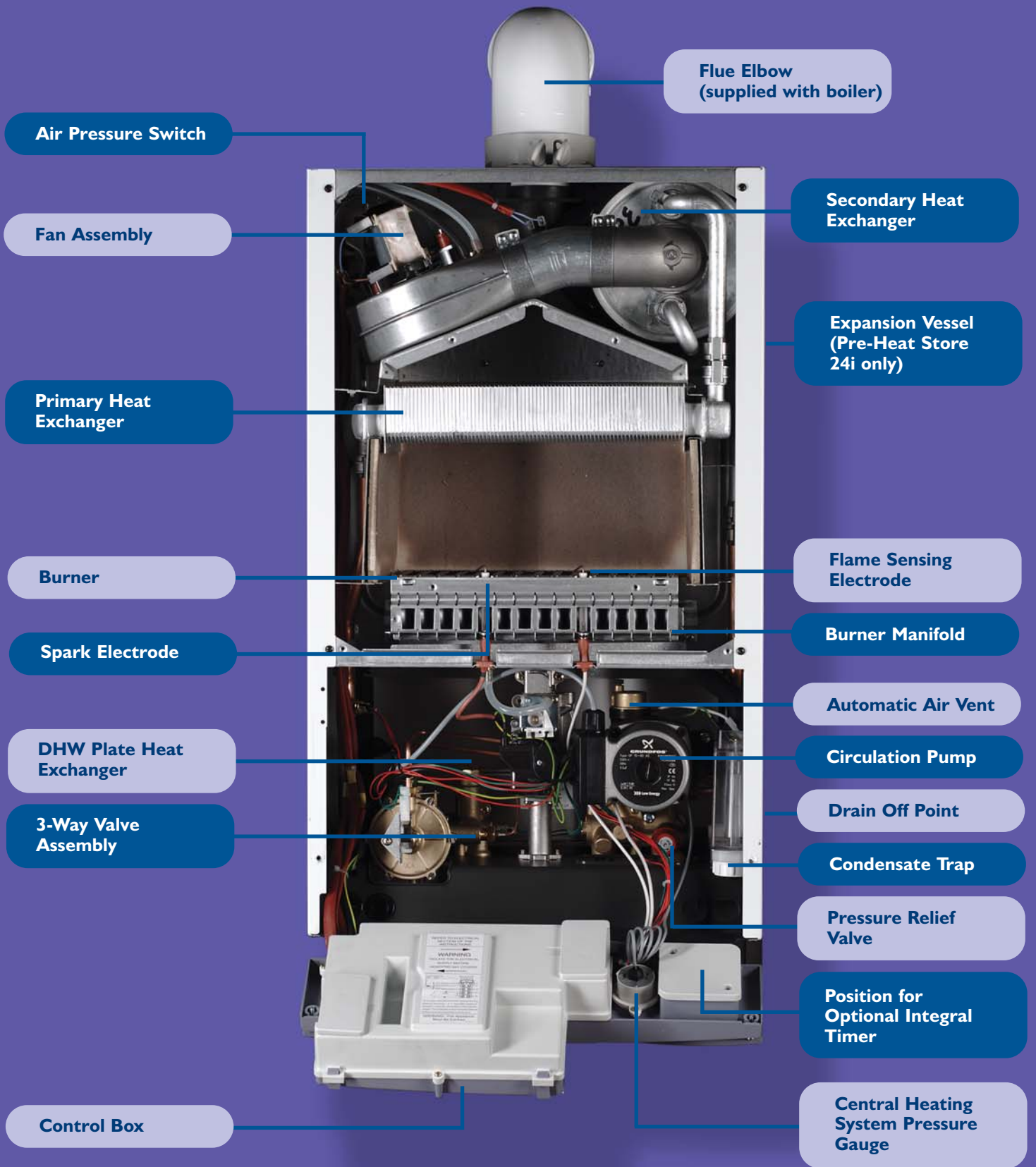
- Provides domestic hot water at up to 9.8 litres per minute raised 35°C.
- Instantaneous hot water.
- Modulating output to maximise economy.
- Operating mode selector switch with reset.
- Independent control of domestic hot water and heating temperature.
- Modern, clean design with drop down door concealing the controls.
- Ten LED status indicators to monitor temperature, operating and fault conditions.
- Pre-plumbing wall plate.
- 100mm concentric flue system (max 4m total length horizontal).
- 80mm twin flueing system (max 12m total length vertical or 24m equivalent length).
- Optional integral timer.
- Optional LPG conversion kit.
- SEDBUK Band B.

## The Performa 30 HE

features a drop down door that conceals the control panel. This 31kW (condensing) boiler delivers a hot water flow rate of up to 12.1 litres per minute raised 35°C.

- 31kW (condensing) heating output, suitable for larger properties.
- Provides domestic hot water at up to 12.1 litres per minute raised 35°C.
- Modulating output to maximise economy.
- Operating mode selector switch with reset.
- Independent control of domestic hot water and heating temperature.
- Ten LED status indicators to monitor temperature, operating and fault conditions.
- Pre-plumbing wall plate.
- 100mm concentric flue system (max 3m total length horizontal).
- 80mm twin flueing system (max 12m total length vertical or 24m equivalent length).
- Optional integral timer.
- Optional LPG conversion kit.
- SEDBUK Band B.

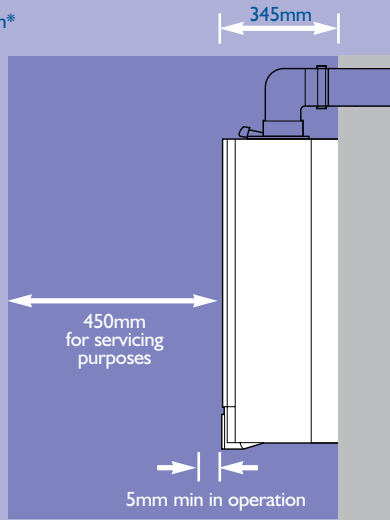
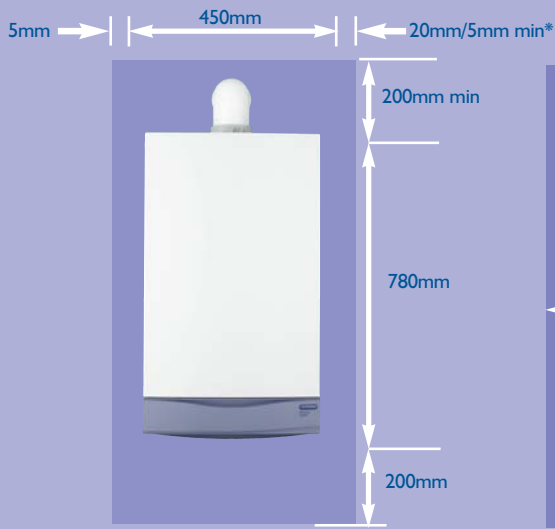
# Combi boiler>>



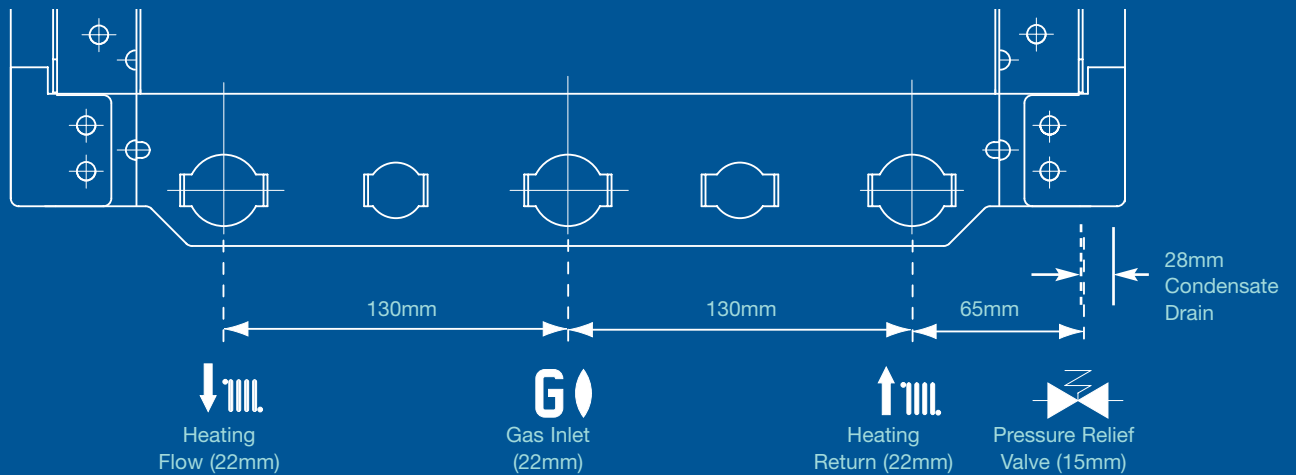
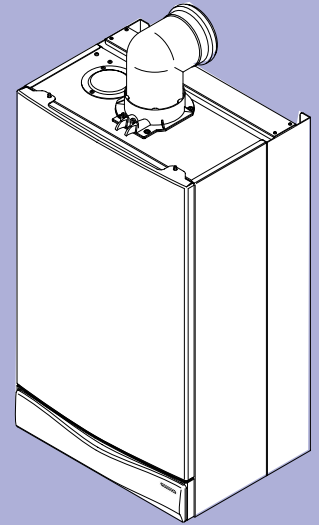
Performa HE range

# Performa System HE range >>

Dimensions and minimum clearance mm



**\*NOTE:** The boiler can be operated with a clearance of 5mm at the right. This is also sufficient for routine maintenance. However a clearance of 20mm is required if it is necessary to remove the secondary heat exchanger. This should be considered when siting the appliance and in the event of any subsequent alterations in the area of installation



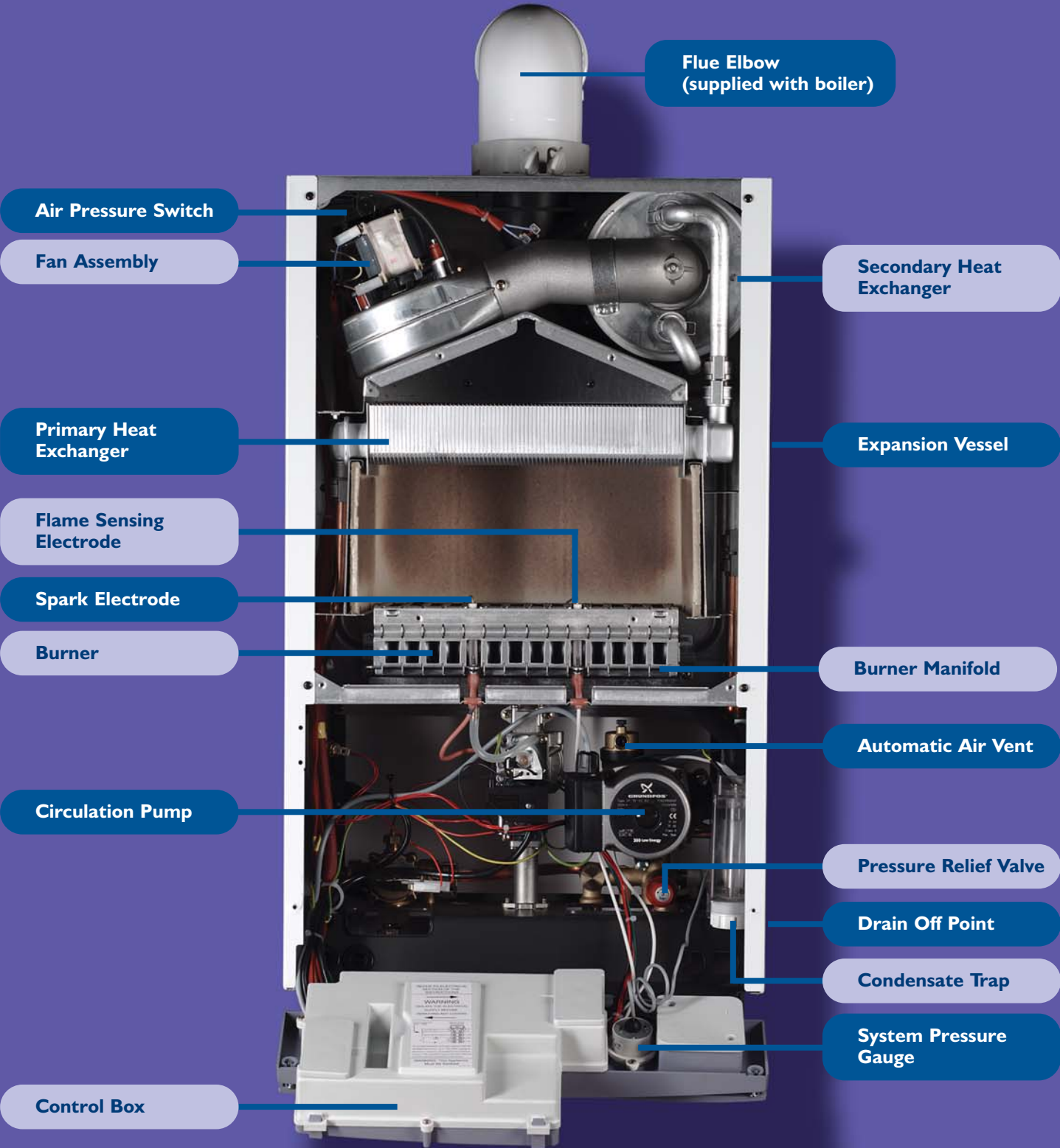
## The Performa System 12 HE, System 18 HE, System 24 HE and System 28 HE.

The Performa System HE boilers feature a smooth, easily cleaned white case and a contrasting sculptured door which drops down to reveal the control panel.

A simple display shows the operating status at any given moment. With four models, each with a fully modulating output, there's one to suit the majority of property types.

- 4 outputs available: 12kW, 18kW, 24kW and 28kW.
- Compact dimensions for easier siting.
- Modulating output to maximise economy.
- Multifunction LED indication of operation and fault modes.
- Pre-plumbing wall plate with integral isolating valves.
- Low lift weights for easier and safer installation.
- 100mm diameter concentric flue system.
- 80mm diameter twin pipe flue system.
- Horizontal or vertical flue terminals.
- Comprehensive range of flue bends and extensions.
- Optional LPG conversion kits.
- SEDBUK Band B.

# System boiler>>



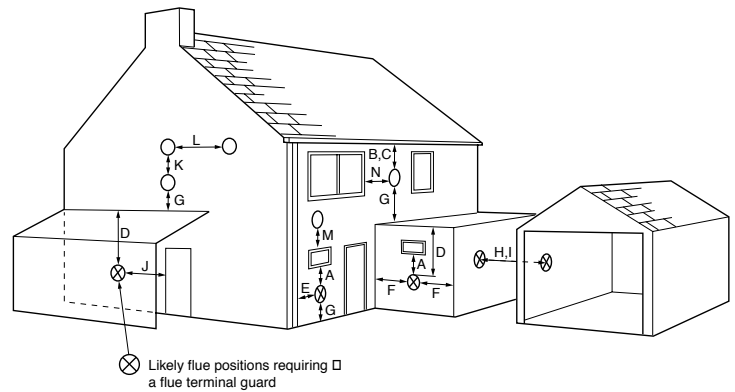
Performa HE range

# Combi & System flue

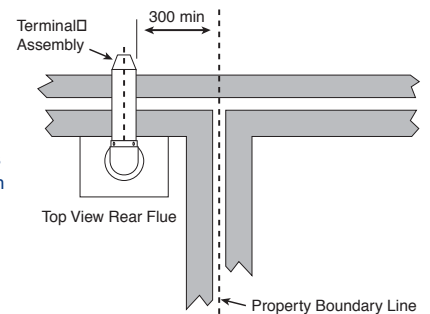
## Minimum flue terminal clearances

### Terminal Position with Minimum Distance

Terminal Position	Minimum Distance (mm)
A* Directly below an openable window, air vent or any other ventilation opening.	300
B Below gutter, drain/soil pipe.	25
C Below eaves.	25
D Below a balcony/carport roof.	25
E From vertical drain pipes and soil pipes.	25
F From internal or external corners.	25
G Above adjacent ground or balcony level.	300
H From a surface facing a terminal.	600
I Facing a terminal.	1200
J From opening (door/window) in carport into dwelling.	1200
K Vertically from a terminal on the same wall.	1500
L Horizontally from a terminal on the same wall.	300
M Above an opening, air brick, opening window etc.	300
N Horizontally to an opening, air brick, opening window etc.	300



NOTE 1: The distance from a fanned draught appliance terminal installed parallel to a boundary may not be less than 300mm as illustrated in diagram.

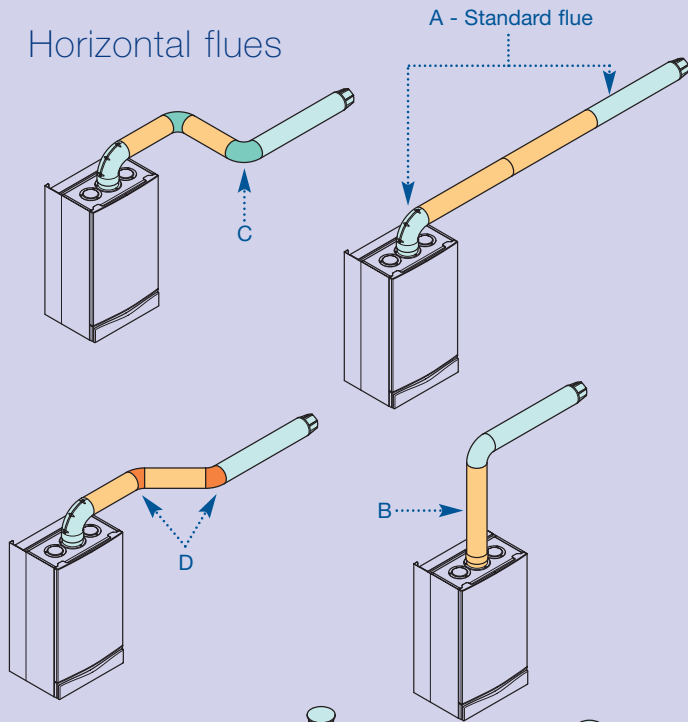


\* In addition, the terminal should be no nearer than 150mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame. See BS 5440 Pt. 1.

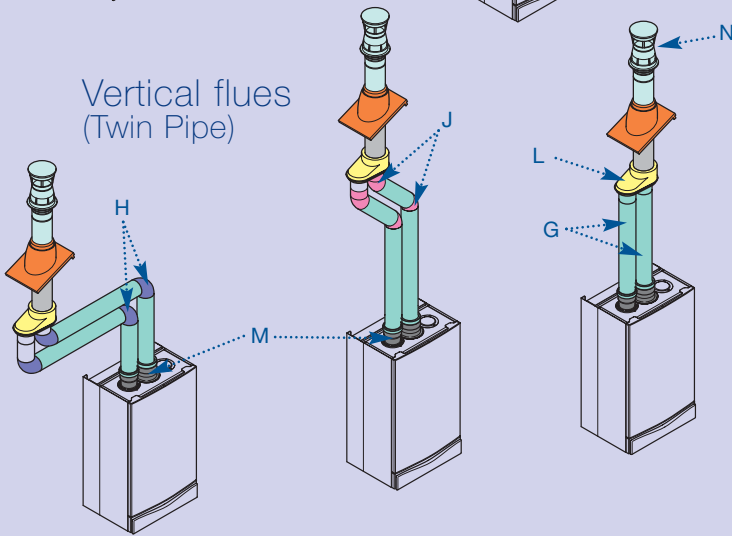
Key	Accessory	Specifications		Potterton code no
<b>Concentric Flue Accessories</b>				
		Length/Angle	Diameter	
A	Standard Horizontal Concentric Flue Kit	750mm	100mm	5111073
B	Concentric Flue Extension Kit	1000mm	100mm	5111074
C	Concentric Flue Bend Kit	93°	100mm	5111075
D	Concentric Flue Bend Kit	135°	100mm	5111076
D	Concentric Flue bend Kit (Pair)	135°	100mm	5111085
	Concentric Flue Internal Fixing Kit/Wall Liner		100mm	5111067
	Concentric Flue Terminal Deflector		100mm	5111068
E	Concentric Flue Vertical Adaptor (Terminal)		100/125mm	5111070
F	Concentric Roof Cover Plate Kit			246143
	Concentric Pipe Support		100mm	5111080
<b>Twin Pipe Flue Accessories</b>				
G	Twin Pipe Extension (Pair)	1000mm	80mm	5111087
H	Twin Pipe Flue Bend Kit (Pair)	90°	80mm	5111072
J	Twin Pipe Flue Bend Kit (Pair)	135°	80mm	5111086
L	Twin Pipe Flue Adaptor (Vertical Terminal)		80/125mm	5111084
	Twin Pipe Support (Pair)		80mm	5111081
M	Twin Pipe Boiler Adapter Kit		80mm	5111079
<b>Universal Flue Accessories</b>				
N	Vertical Flue Terminal		125mm	5111078
P	Universal Flat Roof Flashing		125mm	246144
Q	Universal Roof Tile	25/45°	125mm	246141
R	Universal Roof Tile	35/55°	125mm	246142
<b>Additional Accessories</b>				
	LPG Conversion Kit - Performa 24 Eco HE, Performa 24i HE, Performa 30 HE, System 24 HE and System 28 HE			5113144
	LPG Conversion Kit - Performa System 18 HE			5113143
	LPG Conversion Kit - Performa System 12 HE			5113142
	Filling Loop Kit			248221
	Integral 24hr Elec/Mec Timer Kit			247206
	Integral 7 Day Electronic Timer Kit			247207

# options & accessories >>

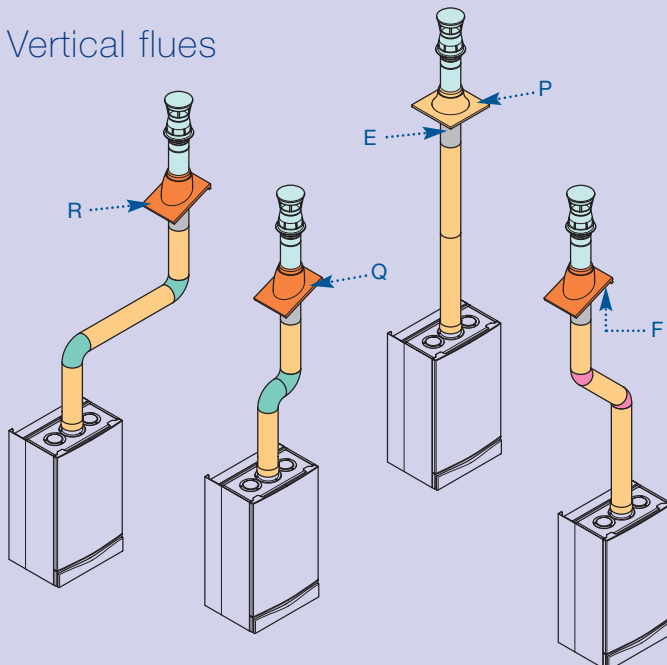
## Horizontal flues



## Vertical flues (Twin Pipe)



## Vertical flues



## Flue options

1. The Potterton Performa HE range can be fitted with flue systems as illustrated.
2. The standard flue is suitable only for horizontal applications.
3. Maximum permissible equivalent flue lengths are:

	Concentric	Vertical	Vertical Two-Pipe
Combi 24 Eco HE	4m	4m	12m
Combi 24i HE	4m	4m	12m
Combi 30 HE	3m	3m	12m
System 12/18 HE	5m	5m	10m
System 24 HE	4m	4m	12m
System 28 HE	3m	3m	12m

4. Any additional "in line" bends in the flue system must be taken into consideration.

Their equivalent lengths are:

Concentric Pipes	135° bend	0.5m
	93° bend	1.0m
Twin Flue Pipe	135° bend	0.25m
	90° bend	0.50m

The elbow supplied with the standard horizontal flue is not included in any equivalent length calculations.

## General principles

Flue systems must be constructed using the Potterton accessories approved for the particular product and installed in accordance with BS5440 part 1 - flues.

This information is provided for guidance only and is not an intended substitute for Installation Instructions, copies of which are included with the product and are also available on request.

Note: These are general illustrations only - detailing of actual components will vary from model to model. For clarity, on occasions items have been labelled once only.

# Performa Combi HE specifications>>

Model	Dimensions or Output	Performa 24 Eco HE	Performa 24i HE	Performa 30 HE
<b>Controls</b>				
User adjustable CH temperature		Yes	Yes	Yes
User adjustable DHW temperature		Yes	Yes	Yes
Operating mode selector switch		Yes	Yes	Yes
LED operating / fault status display		Yes	Yes	Yes
Integral 24 hr electro-mechanical timer		Optional	Optional	Optional
Integral 7 day electronic timer		Optional	Optional	Optional
<b>Gas</b>				
Natural gas		Yes	Yes	Yes
Optional LPG conversion kit		Yes	Yes	Yes
Inlet supply pressure (Natural gas)	mbar	20	20	20
Inlet supply pressure (Propane)	mbar	37	37	37
Gas rate	m <sup>3</sup> /hr	2.62	2.62	3.22
Heat input (maximum)	kW	24.8	24.8	30.5
Heat input (minimum)	kW	10.6	10.6	11.9
Heat output maximum non-condensing	kW	24	24	29.6
Heat output minimum non-condensing	kW	9.8	9.8	11
Heat output maximum condensing	kW	25.2	25.2	31
Heat output minimum condensing	kW	10.1	10.1	11.3
Domestic hot water flow rate (maximum) @ 35°C rise	litres/min	9.8	9.8	12.1
Domestic hot water flow rate (minimum)	litres/min	2.5	2.5	2.5
Seasonal efficiency band	SEDBUK	B	B	B
NO <sub>x</sub>	Class	3	3	3
<b>Electrical</b>				
Electrical supply	Volts / Hz	230 / 50	230 / 50	230 / 50
Power consumption	Watts	170	170	180
External fuse rating	Amps	3	3	3
Ingress protection rating		IPX4D	IPX5D	IPX5D
Pump overrun		No	Yes	Yes
24hr pump exercise		No	Yes	Yes
Integral frost thermostat (boiler protection only)		No	Yes	Yes
<b>Weight</b>				
Maximum installation lift weight	kg	43.5	47	44
<b>Mechanical &amp; Hydraulic</b>				
DHW system pressure maximum	bar	8	8	8
DHW operating pressure minimum	bar	0.2	0.2	0.2
Safety pressure discharge	bar	3	3	3
Integral automatic bypass		Yes	Yes	Yes
CH system capacity maximum	litres	125	80	125
Gas supply pipe size	mm	22	22	22
Flow & return pipe size	mm	22	22	22
Condensate drain connection		1" BSP	1" BSP	1" BSP
Temporary filling loop		Optional	Optional	Optional
Compartment ventilation required		No	No	No
Pre-plumbing jig		No	Standard	Standard
<b>Flue Systems</b>				
Standard concentric flue diameter	mm	100	100	100
Standard flue installed length	mm	685	685	685
Maximum equivalent length horizontal	m	4	4	3
Maximum equivalent length vertical	m	4	4	3
Optional twin pipe vertical flue diameter	mm	80 / 80	80 / 80	80 / 80
Maximum equivalent length	m	24	24	24
<b>Dimensions</b>				
Case height	mm	780	780	780
Case width	mm	450	450	450
Case depth	mm	345	345	345
Minimum service clearance above	mm	200	200	200
Minimum service clearance below	mm	200	200	200
Minimum service clearance sides	mm	5/20*	5/20*	5/20*
Minimum service clearance front	mm	450	450	450
Installed clearance above	mm	200	200	200
Installed clearance sides	mm	5	5	5
Installed clearance below	mm	200	200	200
Installed clearance front	mm	5	5	5

\*20mm at right hand side required to replace secondary heat exchange

# Performa System HE specifications >>

Model	Dimensions or Output	Performa 12 HE	Performa 18 HE	Performa 24 HE	Performa 28 HE
<b>Controls</b>					
Adjustable CH temperature		Yes	Yes	Yes	Yes
Operating mode selector switch		Yes	Yes	Yes	Yes
LED operating / fault status display		Yes	Yes	Yes	Yes
<b>Gas</b>					
Natural Gas		Yes	Yes	Yes	Yes
Optional LPG conversion kit		Yes	Yes	Yes	Yes
Inlet supply pressure (Natural Gas)	mbar	20	20	20	20
Inlet supply pressure (Propane)	mbar	37	37	37	37
Gas rate	m <sup>3</sup> /hr	1.33	1.98	2.62	3.06
Heat input (maximum)	kW	12.5	18.7	24.8	28.9
Heat input (minimum)	kW	7	10.6	10.6	11.9
Heat output maximum non-condensing	kW	12	18	24	28
Heat output minimum non-condensing	kW	6.5	9.9	9.8	11
Heat output maximum condensing	kW	12.5	18.9	25.2	29.3
Heat output minimum condensing	kW	6.7	10.2	10.1	11.3
Seasonal efficiency band	SEDBUK	B	B	B	B
NO <sub>x</sub>	Class	3	3	3	3
<b>Electrical</b>					
Electrical supply	Volts/Hz	230 / 50	230 / 50	230 / 50	230 / 50
Power consumption	Watts	140	140	170	180
External fuse rating	Amps	3	3	3	3
Ingress protection rating		IPX5D	IPX5D	IPX5D	IPX5D
Pump overrun		Yes	Yes	Yes	Yes
24hr pump exercise		Yes	Yes	Yes	Yes
Integral frost thermostat (boiler protection only)		Yes	Yes	Yes	Yes
<b>Weight</b>					
Maximum installation lift weight	kg	38	38.5	40.5	40.5
<b>Mechanical &amp; Hydraulic</b>					
Safety pressure discharge bar		3	3	3	3
Integral automatic bypass		Yes	Yes	Yes	Yes
CH system capacity maximum	litres	125	125	125	125
Gas supply pipe size	mm	22	22	22	22
Flow & return pipe size	mm	22	22	22	22
Condensate drain connection		1" BSP	1" BSP	1" BSP	1" BSP
Temporary filling loop		Optional	Optional	Optional	Optional
Compartment ventilation required		No	No	No	No
Pre-plumbing jig		Standard	Standard	Standard	Standard
<b>Flue systems</b>					
Standard concentric flue diameter	mm	100	100	100	100
Standard flue installed length	mm	685	685	685	685
Maximum equivalent length horizontal	m	5	5	4	3
Maximum equivalent length vertical	m	5	5	4	3
Optional twin pipe vertical flue diameter	mm	80 / 80	80 / 80	80 / 80	80 / 80
Maximum equivalent length	m	20	20	24	24
<b>Dimensions</b>					
Case height	mm	780	780	780	780
Case width	mm	450	450	450	450
Case depth	mm	345	345	345	345
Minimum service clearance above	mm	200	200	200	200
Minimum service clearance below	mm	200	200	200	200
Minimum service clearance sides	mm	5/20*	5/20*	5/20*	5/20*
Minimum service clearance front	mm	450	450	450	450
Installed clearance above	mm	200	200	200	200
Installed clearance sides	mm	5	5	5	5
Installed clearance below	mm	200	200	200	200
Installed clearance front	mm	5	5	5	5

\*20mm at right hand side required to replace secondary heat exchange



## Potterton Performa HE Range >>

### Contacts

General Enquiries

Tel: **0870 606 0780**

Technical Information

Tel: **0870 604 9049**

Service

Tel: **0870 609 6096**

Fax: **01926 410 006**

Literature Request

Tel: **0870 606 0623**



IPX4D

IPX5D

Potterton supports



The code of practice for the  
installation, commissioning &  
servicing of central heating systems



FM35908  
BSEN ISO 9001  
QUALITY MANAGEMENT  
SYSTEM STANDARD



**BAXI POTTERTON**  
A trading Division of Baxi Heating UK Ltd,  
A division of Baxi Group

Brownedge Road Bamber Bridge  
Preston Lancashire PR5 6UP  
Website [www.potterton.co.uk](http://www.potterton.co.uk)

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. & O.E.

PERFHE/5113249/6078/05/V2



**Performa HE**