

# BAXI

## Air source heat pumps

Get comfortable  
with the bear facts



# The way we heat our homes is changing

Heating and hot water accounts for the majority of the energy we use in our homes. And with energy costs rising, it also accounts for a growing proportion of the average household's monthly bills. At the same time, many homeowners are looking for ways to be more environmentally friendly and reduce their carbon footprint.

On top of that, the UK government has set a target of achieving net zero emissions by 2050. As part of this goal, it is encouraging homeowners to make the move to more sustainable, low carbon heating solutions for their homes.

## We're changing too

With over 150 years' experience in the heating industry, we're experts in the field and we understand the challenges you face. So, we're expanding our range to bring you future-proof solutions that will meet these challenges head on, backed by a service that will help guide you to a carbon-neutral future.

## Check out our Baxi Air Source Heat Pump (ASHP) range of products

Our ASHPs are available individually or with Baxi ASHP cylinders to offer a complete, packaged solution. Each ASHP system delivers exceptional reliability and performance, and our expert services will help you and your customers get the very best out of our ASHPs for many years to come.

From our training courses, that will help you get comfortable with air source heat pumps to ensure you get maximum efficiency and cost-effectiveness from every ASHP system you install, to enhanced warranty options for your customers, we've got every base covered.



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# How our ASHPs work

1

The fan draws in ambient air from the outside, into the evaporator.

2

Liquid refrigerant absorbs the air's heat and evaporates into a vapour, even at low temperatures.

3

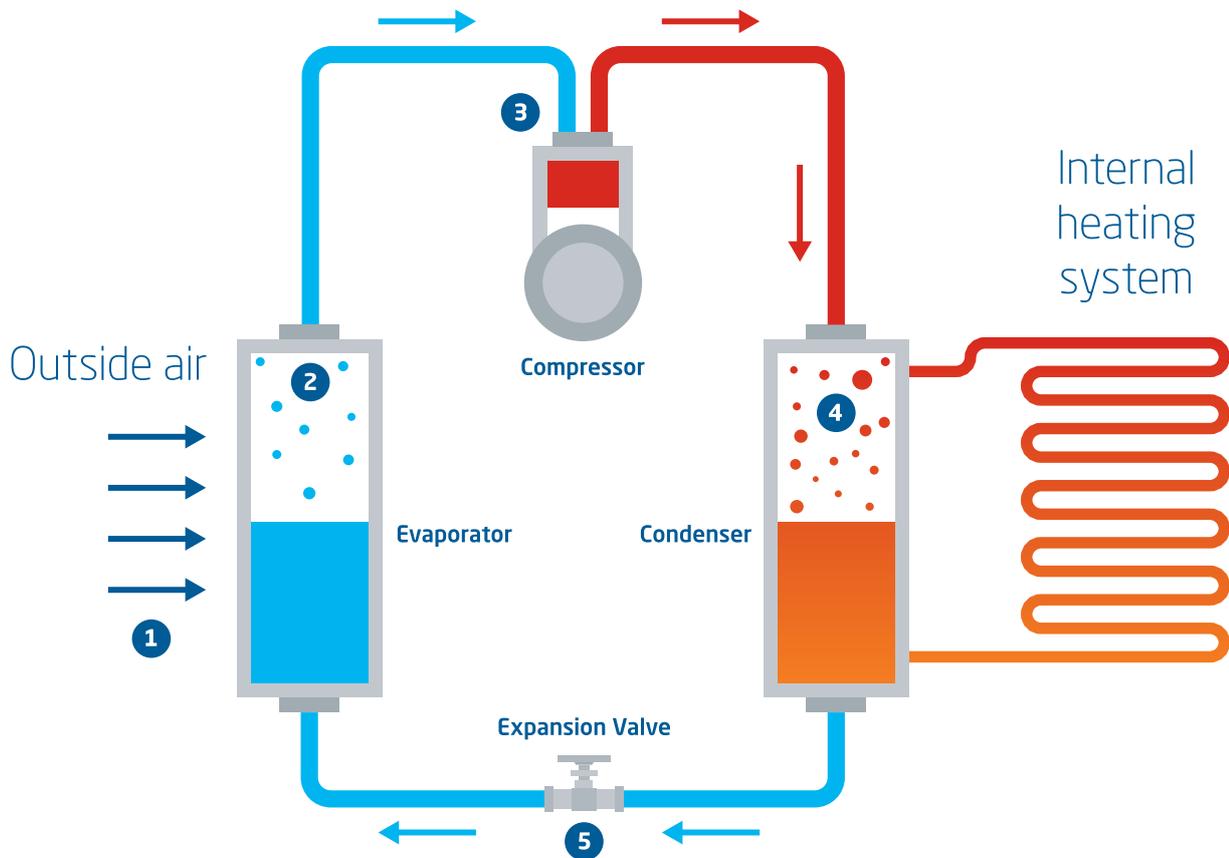
This vapour enters the compressor where the pressure and temperature are increased.

4

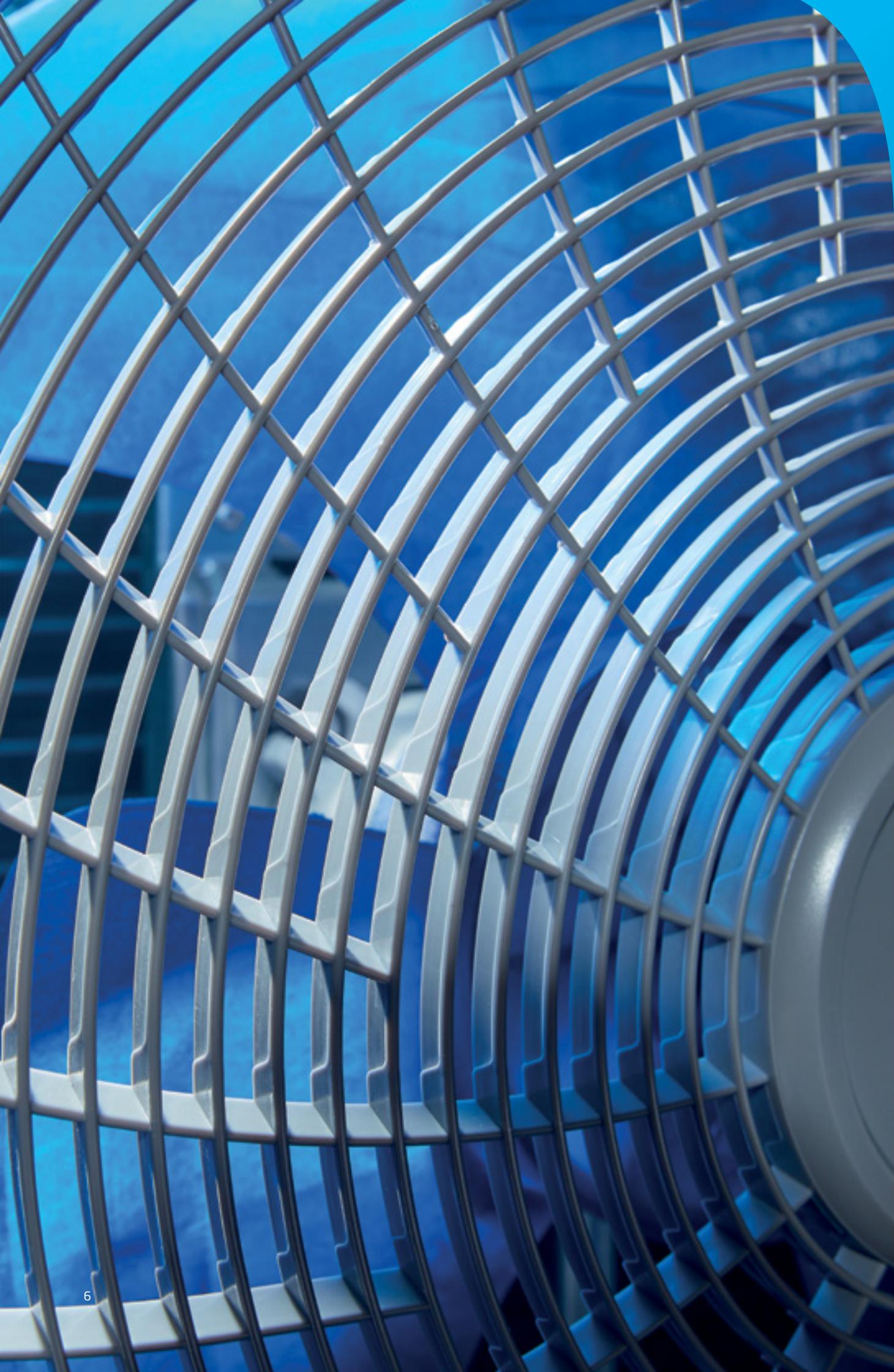
The heated refrigerant passes through the condenser, transferring heat into the home's heating and hot water system.

5

The refrigerant flow is then controlled by the expansion valve to continue heat pump operation.







# The big benefits of our ASHP solutions



## Reliable

Created by the experts in residential heating and hot water

Up to 65°C flow temperature

Operation down to -25°C ambient

Low maintenance

Service plans and 5 years' enhanced warranty\* options for homeowners when commissioned by a Baxi Heat Pump Installer

Commissioning and servicing carried out by Baxi Engineer or Baxi Heat Pump Installer and always with genuine parts

Microgeneration Certification Scheme (MCS) certified for quality assurance



## Efficient

Can significantly boost SAP ratings

DC Inverter adjusts output to suit the property's needs

Bespoke specification design service for accurate ASHP sizing

SCOP up to 3.39 at 55°C flow temperature



## Convenient

With wide range of outputs from 4-13kW (A-2W45)

Easy to install and operate

Monobloc design

Saves space – single fan design on all models

No need for added fuel storage

Compatible with Baxi uSense and uSense 2 smart thermostats, so can be controlled on the move

Support at every step from a dedicated Area Sales Manager and award-winning customer service team

Access to a network of approved Baxi Heat Pump Installers



## Cost effective

Long-term cost savings compared to oil boilers and electric storage heating

Certified product range eligible for up to £7.5k grant through the Boiler Upgrade Scheme (BUS)

# Baxi HP40 Monobloc ASHP

A single self-contained outdoor ASHP unit compatible with our Baxi ASHP Hot Water Cylinder range.



4kW to  
13kW  
outputs



Easy to  
install



Reduced  
noise



Commissioning  
support  
available



Up to  
5 years'  
enhanced  
warranty\*

## Key features

### In build and installation

Outputs of 4kW to 13kW

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Easy to install single unit

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Available with an optional back-up heater to maintain comfort levels in very cold weather

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Easily-accessible internal components for servicing and maintenance

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Self-contained R32 refrigerant, giving low Global Warming Potential (GWP)

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Monobloc design complete with integrated water pump and expansion vessel

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Built in outdoor temperature sensor enhances comfort by maintaining the right temperature at all times

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### In operation and performance

Up to 65°C Flow Temperature

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DC Inverter technology gives reliable efficiency

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Excellent SCOP: up to 5.03

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A+++ ERP rating at 35°C flow temperature

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Flexible multi-function controls

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Compatible with Baxi uSense smart thermostats, so can be controlled on the move

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Up to 5 years' enhanced warranty\* for extra peace of mind

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Quiet in operation

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\* Enhanced warranty options subject to T&Cs.



**BAXI**



# Baxi HP40 Monobloc ASHP

## technical specifications

OUTDOOR UNIT	4kW	5kW	7kW	8kW	11kW	13kW	11kWφ	13kWφ
Product code	7830576	7830575	7830574	7830573	7830572	7830571	7830570	7830568
<b>PRODUCT INFORMATION</b>								
Min/Max Operating Range (°C)	-25/+35	-25/+35	-25/+35	-25/+35	-25/+35	-25/+35	-25/+35	-25/+35
<b>SCOP 35°C</b>	<b>4.66</b>	<b>4.77</b>	<b>5.03</b>	<b>5.03</b>	<b>4.67</b>	<b>4.49</b>	<b>4.67</b>	<b>4.49</b>
<b>35°C Maximum Output <sup>(1)</sup></b>								
A-5°C W+35°C	5.02	6.14	7.69	8.80	11.3	14.0	11.3	14.0
A0°C W+35°C	5.10	6.35	8.49	9.56	12.0	14.3	12.0	14.3
A+7°C W+35°C	6.26	7.41	9.11	10.3	14.6	16.8	14.6	16.8
<b>35°C Nominal Output <sup>(2)</sup></b>								
A-5°C W+35°C	4.37	5.26	6.69	7.66	9.05	11.2	9.05	11.2
A0°C W+35°C	4.60	5.74	7.67	8.63	9.19	10.9	9.19	10.9
A+7°C W+35°C	4.20	6.35	8.40	10.0	12.1	15.9	12.1	15.9
<b>SCOP 45°C</b>	<b>3.93</b>	<b>4.06</b>	<b>4.11</b>	<b>4.19</b>	<b>4.01</b>	<b>3.88</b>	<b>4.01</b>	<b>3.88</b>
<b>45°C Maximum Output <sup>(1)</sup></b>								
A-5°C W+45°C	4.63	5.84	7.44	8.18	10.9	13.4	10.9	13.4
A0°C W+45°C	5.04	6.85	8.09	8.89	12.3	14.1	12.3	14.1
A+7°C W+45°C	5.96	7.13	8.98	10.3	14.5	16.6	14.5	16.6
<b>45°C Nominal Output <sup>(2)</sup></b>								
A-5°C W+45°C	4.10	5.10	6.49	7.13	8.78	10.7	8.78	10.7
A0°C W+45°C	4.46	6.06	7.16	7.87	9.43	10.8	9.43	10.8
A+7°C W+45°C	4.30	6.30	8.10	10.0	12.3	16.0	12.3	16.0
<b>SCOP 55°C</b>	<b>3.19</b>	<b>3.39</b>	<b>3.23</b>	<b>3.37</b>	<b>3.34</b>	<b>3.30</b>	<b>3.34</b>	<b>3.30</b>
<b>55°C Maximum Output <sup>(1)</sup></b>								
A-5°C W+55°C	4.41	5.31	7.35	7.53	10.6	12.6	10.6	12.6
A0°C W+55°C	5.13	5.42	8.11	8.18	10.8	12.8	10.8	12.8
A+7°C W+55°C	5.74	6.90	8.43	9.72	13.9	16.2	13.9	16.2
<b>55°C Nominal Output <sup>(2)</sup></b>								
A-5°C W+55°C	3.94	4.28	5.56	6.49	8.36	9.98	8.36	9.98
A0°C W+55°C	4.43	4.75	6.33	7.30	7.93	9.77	7.93	9.77
A+7°C W+55°C	4.40	6.00	7.50	9.50	11.9	16.0	11.9	16.0
Sound Pressure Level dB(A) @1m	45.0	47.5	48.0	50.5	53.0	57.5	53.5	58.0
Sound Power Level dB(A) (EN12102-1)	55	58	59	60	65	68	65	68
ERP @ 35°C	A+++							
ERP @ 55°C	A++							
Power Supply (V/Ph/Hz)	220- 240/1/50	220- 240/1/50	220- 240/1/50	220- 240/1/50	220- 240/1/50	220- 240/1/50	380- 415/3/50	380- 415/3/50
MCA (A)	12	14	16	17	25	27	10	12
TOCA (A)	18	18	19	19	30	30	14	14
MFA (A)	25	25	25	25	35	35	16	16
Flow/Return Connections	G 1"	G 1"	G 1 1/4"					
Internal Expansion Vessel (L)	8	8	8	8	8	8	8	8
Maximum Water Pressure (bar)	3	3	3	3	3	3	3	3
Refrigerant	R32							
Volume (kg)	1.4	1.4	1.4	1.4	1.75	1.75	1.75	1.75

OUTDOOR UNIT	4kW	5kW	7kW	8kW	11kW	13kW	11kWφ	13kWφ
Product code	7830576	7830575	7830574	7830573	7830572	7830571	7830570	7830568

### VOLUMETRICS

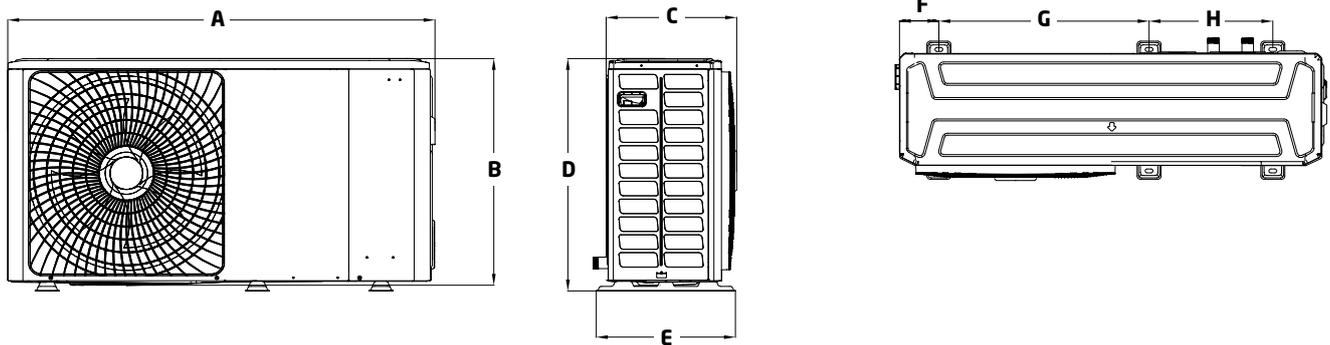
Height (mm)	700	700	850	850	850	850	850	850
Width (mm)	1309	1309	1388	1388	1388	1388	1388	1388
Depth (mm)	400	400	448	448	448	448	448	448
Weight (kg Net)	86	86	105	105	129	129	144	144
Weight (kg Gross)	107	107	132	132	155	155	172	172

<sup>(1)</sup> Output values tested at maximum compressor frequency

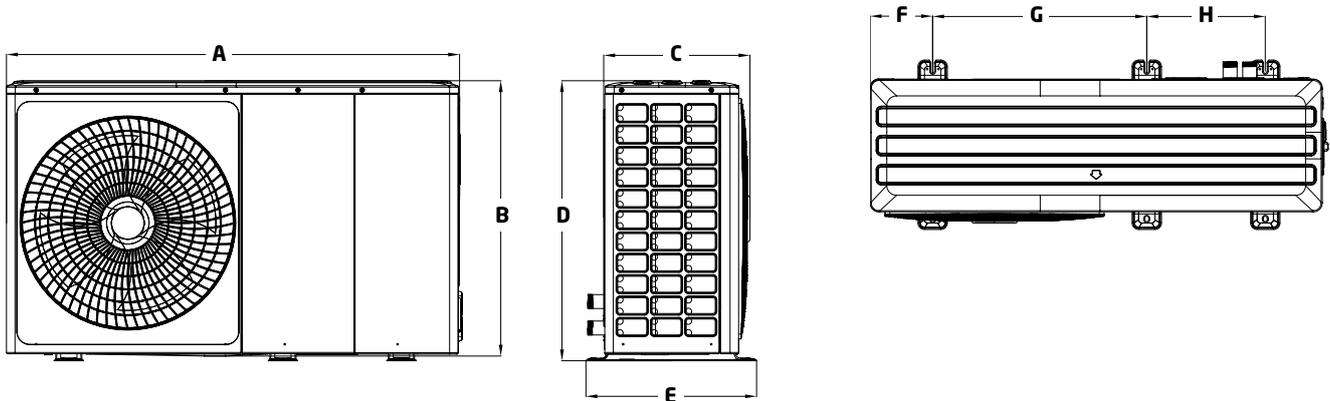
<sup>(2)</sup> Nominal values under test conditions EN14825:2013

Selections and sizing offered by Baxi utilise nominal values unless otherwise stated.

### 4/5kW OUTDOOR UNIT DIMENSIONS



### 7/8/11/13kW OUTDOOR UNIT DIMENSIONS

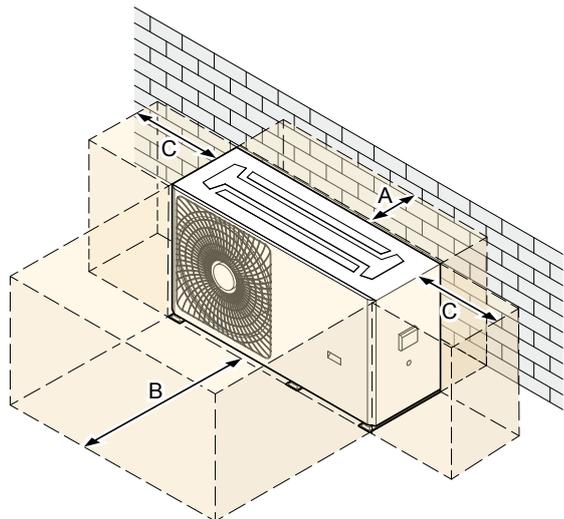


Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
4/5kW	1309	700	400	717	426	121	644	379
7/8/11/13kW	1388	850	448	864	523	191	656	363

# Baxi HP40 Monobloc ASHP technical specifications

## SITING THE UNIT

Minimum clearances shown below. Please refer to installation manual for further details.

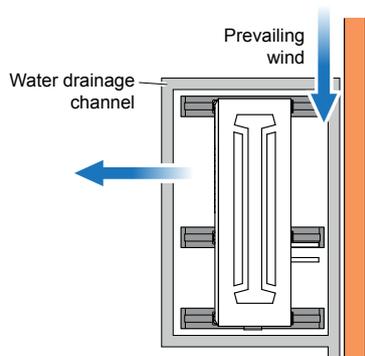


In case of strong wind towards the heat pump, the orientation can be reversed. Turn the air outlet side towards the building, fence or screen.

Model	A (mm)	B (mm)	C (mm)
4/5kW	>300	>1000	500
7/8/11/13kW	>300	>1500	500

Make sure there is enough room to do the installation.

Set the outlet side at a right angle to the direction of the wind.



- Prepare a water drainage channel around the foundation, to drain waste water from around the unit.
- If water does not easily drain from the unit, mount the unit on a foundation of concrete blocks, etc. (the height of the foundation should be about 100 mm (3.93 in)).
- If you install the unit on a frame, please install a waterproof plate (about 100 mm) on the underside of the unit to prevent water from coming in from the low side.
- When installing the unit in a place frequently exposed to snow, pay special attention to elevate the foundation as high as possible.

### Selecting a location in cold climates

#### NOTE:

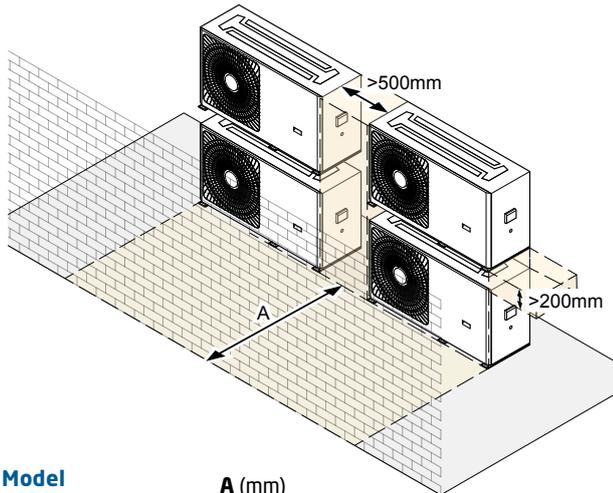
When operating the unit in cold climates, be sure to follow the instructions described below.

- To prevent exposure to wind, install the unit with its suction side facing the wall.
- Never install the unit at a site where the suction side may be exposed directly to wind.
- To prevent exposure to wind, install a baffle plate on the air discharge side of the unit.
- Avoid locations where the unit can be covered by snow. In areas where heavy snow fall is anticipated, special precautions such as raising the installation location or installing a hood on the air intake must be taken to prevent the snow from blocking the air intake or blowing directly against it. This can reduce the airflow and a malfunction may result.

## CLEARANCE AROUND THE UNIT

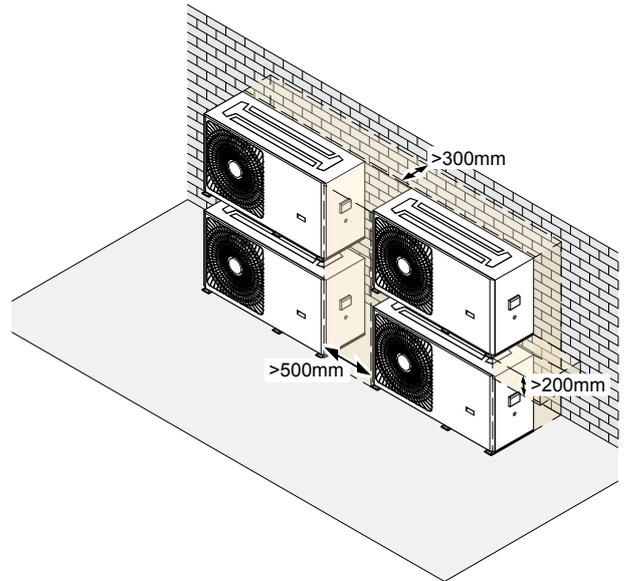
### Service space requirements in case of stacked installation

1. In case obstacles exist in front of the outlet side.



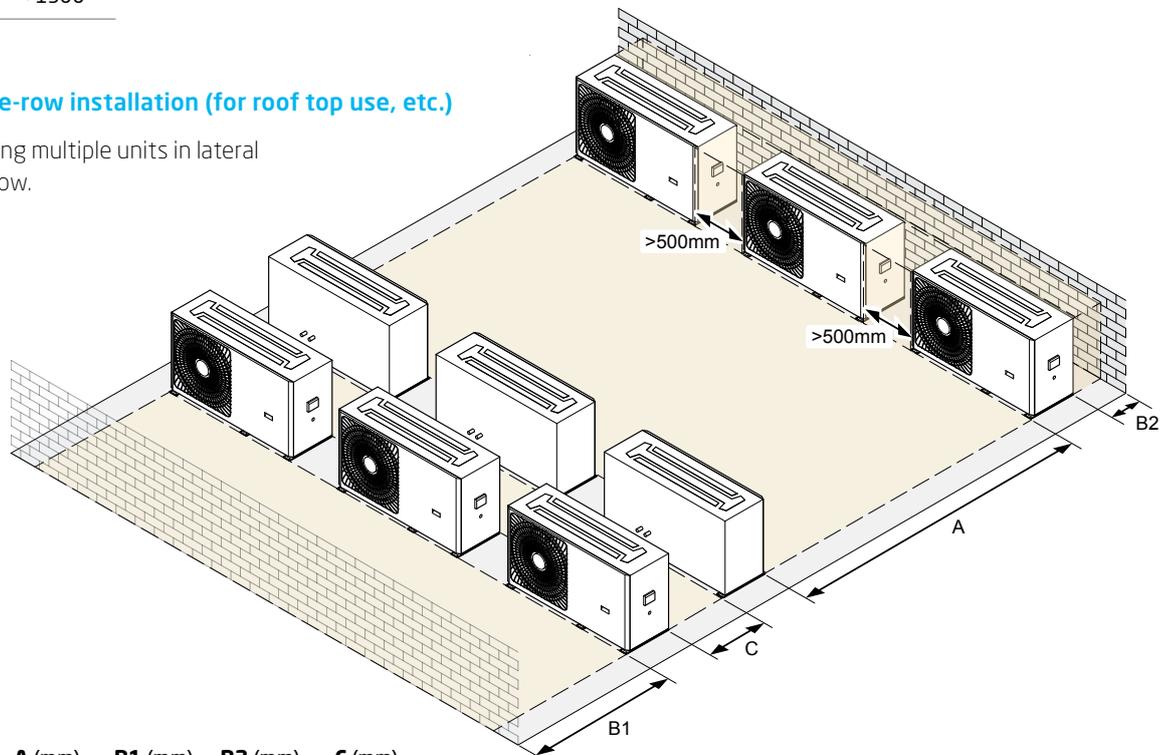
Model	A (mm)
4/5kW	>1000
7/8/11/13kW	>1500

2. In case obstacles exist behind the outlet side.



### In case of multiple-row installation (for roof top use, etc.)

1. In case of installing multiple units in lateral connection per row.



Model	A (mm)	B1 (mm)	B2 (mm)	C (mm)
4/5kW	>2500	>1000	>300	>600
7/8/11/13kW	>3000	>1500		

Created by our  
hot water experts at  
**HEATRAE SADIA**

# Baxi ASHP Cylinder

Created by our hot water experts Heatrae Sadia, the Baxi ASHP cylinder delivers exceptional levels of performance and have been specifically designed for Baxi Air Source Heat Pumps.



Corrosion  
resistant



Easy to  
install



Rapid  
heating



2 years warranty as  
standard, with 10  
years on the inner  
stainless steel tank\*



## Key features

### In build and installation

Models available in 210, 250 or 300 litre volumes

Corrosion-resistant stainless steel build – made by the experts at Megaflo and Heatrae Sadia

High surface area heat exchanger specifically designed to be used with heat pumps

Easy to install

In built back-up immersion heaters to support heat pumps for continuous hot water

Immersion Heater Relay Kit in box including Immersion Heater Relay, Immersion Heater Relay Box and DHW temperature probe extension

### In operation and performance

In built interdependent boost heater for rapid hot water production

Low heat loss

Excellent flow rates

Delivers up to 76L/min of hot water at 3 bar pressure

No need for shower pumps or tanks

2 years warranty as standard, with 10 years on the inner stainless steel tank\*

Injected foam insulation gives optimum heat retention and energy efficiency

\* See [baxi.co.uk](http://baxi.co.uk) for terms and conditions.

# Baxi ASHP Cylinder technical specifications

	210ltr	250ltr	300ltr
Product code	7837416	7837491	7837562
<b>PRODUCT INFORMATION</b>			
Nominal capacity (litres)	210	250	300
Insulation thickness (mm)	60	60	60
Immersion heater rating (1 x 3kW)	1 x 3	1 x 3	1 x 3
Boost immersion heater (1 x 3kW)	1 x 3	1 x 3	1 x 3
Standing heat loss (kWh/year)	547.5	649.7	748.3
Standing heat loss	1.5kW/24h	1.78kW/24h	2.05kW/24h
Max flow @ 3.5 bar (litres per minute)	76	76	76
Max flow @ 1 bar (litres per minute)	45	45	45
Storage volume in litres @ 3 bar	209	246	289
The water heating energy efficiency class of the model	B	C	C
Maximum supply pressure to incoming mains cold water combination valve (supplied)	1.6MPa (16 bar)		
Minimum recommended supply pressure and flow rate	0.15MPa (1.5 bar) - 20 litres per minute		
Operating pressure	0.35MPa (3.5 bar)		
Inner water container	High grade duplex stainless steel pressure tested to 15 bar		
Thermal insulation	CFC/HCFC free, fire retardant expanded polyurethane foam with zero zone depletion. GWP = 3.1		
DHW - expansion relief valve	0.6MPa (6 bar)		
Immersion heater rating (AC supply only)	3kW @ 240V / 2.8kW @ 230V		
Domestic hot water expansion	18L (210L) and 24L (250 & 300L)		
<b>COMPONENTS</b>			
Immersion heaters	Factory fitted immersion heater and thermal controls. Long-life superloy 825 alloy sheathed elements		
Cold water	Cold water inlet control kit comprising of: 0.35MPa (3.5 bar) pressure reducing valve 0.6MPa (6 bar) pressure relief valve 1/4 turn isolating valve, line strainer, non return valve, drain valve		
Safety	Factory fitted temperature and pressure relief valve set at 90°C / 1MPa (10 bar) inc. T&P valve insulation kit, 22mm tundish, additional thermostat and thermal cut out, 18 and 24 litre DHW expansion vessel with brackets		
Electrical	Wiring centre - 28mm 3 port diverter valve		
Immersion Heater Relay Kit	Immersion Heater Relay, Immersion Heater Relay Box and DHW temperature probe extension		
<b>VOLUMETRICS</b>			
Height (mm)	1524	1837	2088
Width (mm)	579	579	579
Depth (mm)	652	652	652
Weight (kg)	60	69	74

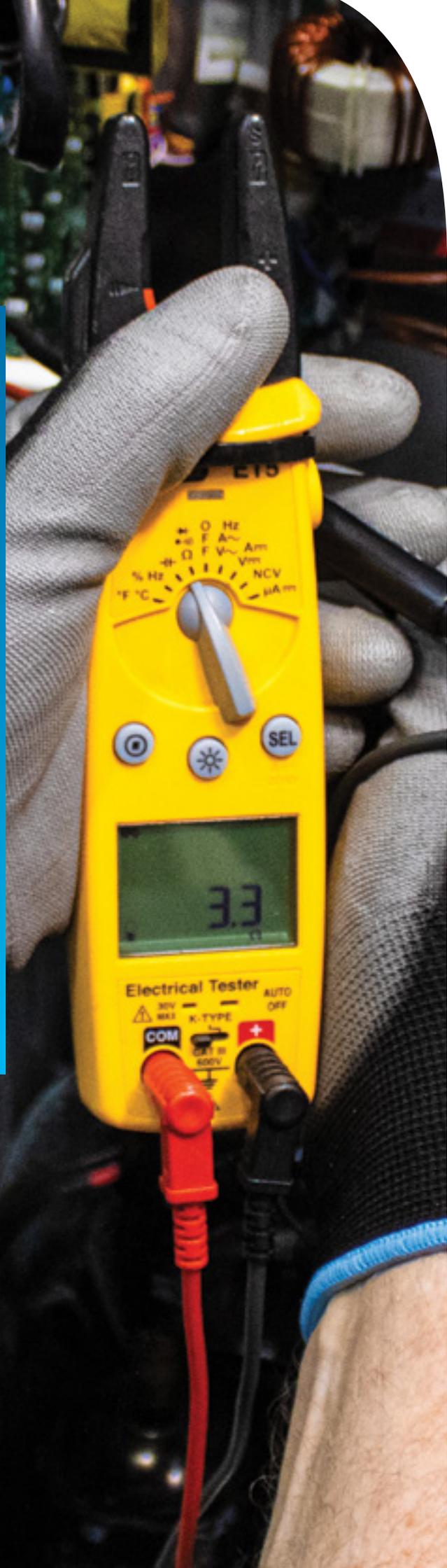
# ASHP training

With Baxi ASHPs, the heating system is only part of the story. We're also passionate about providing the service and support needed, every step of the way.

Our comprehensive range of specialist, accredited and free product familiarisation training cover all Baxi products, including ASHPs, so you can gain all the knowledge and qualifications you need to run a successful business.

Courses are carried out by qualified experts at our CIPHE-approved training centres nationwide where our experienced trainers will help you get comfortable with the Baxi Air Source Heat Pump range.

Contractors and installers can become a Baxi Heat Pump Installer by enrolling on our Baxi Heat Pump Installer course enabling them to commission the product and register warranty directly through Baxi Works and activate the enhanced warranty.



### Product Day Training

This one day course provides hands-on experience in real world situations with the latest range of live Baxi boilers and ensure you stay compliant with the latest information on new products including ASHPs and legislation updates.

### Air Source Heat Pump Product Day

This one day course is for anyone wanting to know more about our range of heat pumps, the day will cover how a heat pump works, our product range and some installation considerations.

### BPEC Accredited Training

This three day course is designed to give installers the skills and knowledge required to correctly install heat pumps and has been developed with the intention of meeting the requirement of the National Occupational Standards and industry working groups.

The course provides a nationally recognised qualification that can be used to gain entry to the Microgeneration Certification Scheme (MCS).

Delegates will be sent a home study pack that needs to be completed prior to attending the course. During the hands-on session individuals will learn the principles of design, installation, commissioning, and servicing of air source heat pump systems. This is followed by a formal assessment.

### Baxi Heat Pump Installer Training

The course is for delegates who are MCS or have a recognised heat pump qualification. It will provide in depth knowledge and practical skills through 2 one day modules:

- **Module 1- Design and application:**

Understand how accurate design can deliver the best outcome and different applications to suit your customer's needs (1 day)

- **Module 2 - Installation and commissioning:**

Learn all about Baxi heat pumps, installation requirements and how to set the system up for the best results. Covering commissioning and fault finding, you will really get to understand our products (1 day)

On the completion of the course installers will be able to book a supervised commissioning visit to sign-off their first installation.

### Becoming a Baxi Heat Pump Installer

As a Baxi Heat Pump Installer, customers are assured of a reliable standard of design, installation, commissioning and servicing of our range of Baxi Air Source Heat Pumps. By becoming a Baxi Heat Pump Installer:

- You will become comfortable with designing, installing, commissioning and servicing our ASHP range
- Directly commission Baxi ASHP products and provide your customers with the enhanced warranty
- Register your product and earn points for rewards on Baxi Works – sign up at [baxiworks.co.uk](https://baxiworks.co.uk)

To become a Baxi Heat Pump Installer visit [baxi.co.uk/hpinstaller](https://baxi.co.uk/hpinstaller)

**For more information about our training courses register your interest at [baxi.co.uk/training](https://baxi.co.uk/training) or speak to your Area Sales Manager.**



Join the installer loyalty scheme that really

# WORKS FOR YOU



Earn reward points for eligible product registrations



Receive automated service reminders and expert advice



Access the Baxi Toolbelt App for Gas Safe registered installers



Appear on the Baxi Find an Installer listing



Book ASHP commissioning visits



Enjoy the premium benefits of being a Baxi Approved Installer, when you register at least 20 eligible products a year



Get priority engineer call-outs

*Sign up  
today* →

[baxiworks.co.uk](https://baxiworks.co.uk)



## Get in touch

Call: 0344 871 1525  
Email: [info@baxi.co.uk](mailto:info@baxi.co.uk)  
Visit: [baxi.co.uk](http://baxi.co.uk)

[baxi.co.uk/trade/terms-and-conditions](http://baxi.co.uk/trade/terms-and-conditions)

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Warwick CV34 4LL

Baxi Heating UK Limited is registered in England and Wales with company number 03879156 and registered office address Brooks House, Coventry Road, Warwick, CV34 4LL. VAT registration number is 604665837.  
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**BAXI**

**remeha**

**megaflo**



**HEATRAESADIA**

**MAIN**  
HEATING

**POTTERTON**  
COMMERCIAL

**Residential and  
commercial solutions**