



# aroTHERM PLUS

Discover a future-proof solution today that is both powerful and environmentally friendly.

**THE NEW AROTHERM PLUS USES THE NATURAL REFRIGERANT, R290 TO ACHIEVE HIGHER FLOW TEMPERATURES OF UP TO 75°C. SUITABLE FOR ALL APPLICATIONS THIS AIR SOURCE HEAT PUMP CAN USE EXISTING RADIATORS AND OPERATES DOWN TO -25°C.**

Setting new standards in the heating market has been a Vaillant tradition for years. Now they are leveraging their expertise to help protect the climate – by introducing the natural refrigerant R290 for their heat pump product range.

It has clear advantages over alternative refrigerants: approx. 75% less filling quantity is needed, it has low global warming potential (GWP) which is a comparative value that indicates the greenhouse effect of a green house gas. The new aroTHERM Plus also provides significant product benefits for customers, such as a high flow temperature of 75°C, which makes the solution perfect for use during refurbishments. The new aroTHERM 6 is one of our first products to use R290 – more will follow in the future.

### What is R290?

It's the technical name for the natural refrigerant also known as propane. R290 is already commonly used in many parts of our daily life, such as in refrigerators, air conditioning or even hairspray – Vaillant is one of the first companies to introduce the environmentally friendly refrigerant in heat pumps now.

### R290 brings unbeatable benefits to our heat pumps:

- Improved COP of up to 5.4 for lower running costs
- Higher flow temperature – up to 75°C in heat pump mode; ideal for refurbishment
- Higher hot water comfort and legionella protection without backup heater due to a wide working envelope from -25 to +46°C
- Low GWP of 3 – exceptionally eco-friendly and future-proof
- Stable service costs over product life cycle

### \* What is global warming potential (GWP)?

GWP is a comparative value that indicates the greenhouse effect of a greenhouse gas, such as a refrigerant, if it were to be released into the environment. The higher the value, the worse the impact on the climate.

### Exemplary GWPs of some refrigerants:

CO2	1
R290	3
R32	675
R410A	2,088

The value indicates the amount of CO<sub>2</sub> which has an equal global warming effect. To calculate the CO<sub>2</sub> impact of a refrigerant, the amount contained in the heat pump is multiplied by its GWP value.

### Exemplary calculation

R410A  
1.8 kg of R410A x 2,088 GWP  
**= 3,760 kg CO<sub>2</sub>**

R290 (aroTHERM plus)  
0.6 kg of R290 x 3 GWP  
**= 1.8 kg CO<sub>2</sub>**



**13-hour flight**  
from New Zealand  
to Thailand



**15 km**  
drive by car

# Arotherm Plus

## Solutions with you in mind.

Vaillant products are world leading in heating, cooling and renewables, with their simple device operation and high efficiency you can enjoy worry-free comfort in your home.

Waterware supplies only top quality solutions, with the highest level of technical support when you need it.

Call us today to find out more 0800 WATERWARE



Arotherm Plus	HPVP9	HPVP16
Width	1,100mm	1,100mm
Height	965mm	1,565mm
Depth	450mm	450mm
Weight, ready for operation	128kg	210kg
Heating water temp min/max	20 to 75°C	20 to 75°C
Refrigerant, type	R290	R290
Refrigerant, fill quantity	0.90kg	1.30kg
Compressor type	Rotary	Scroll
Heat output, nominal, A7/W35	7.80 kW	14.3 kW
Coefficient of performance, COP, EN 14511, A7/W35	4.4	4.3
Power consumption, effective, A7/W35	1.77 kW	3.33
Cooling output, A35/W18	6.40 kW	10.8 kW
Energy efficiency ratio, EER, EN 14511, A35/W18	4.3	4.6
Power consumption, effective, A35/W18	1.05 kW	2.35
Sound power, EN 12102, EN 14511 LWA, A7/W35	58 dB(A)	61 dB(A)