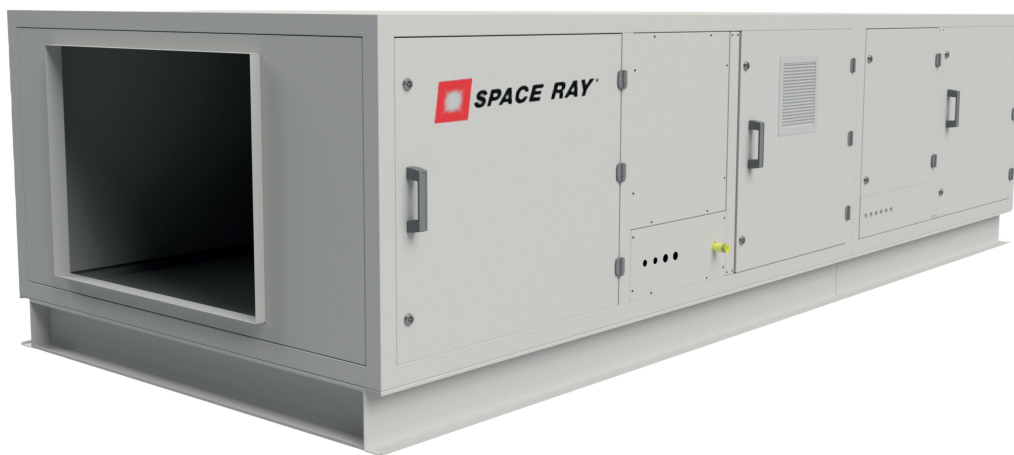




# Vortex

Gas Fired, LPHW or Electric,  
Heating & Ventilation Unit



*Innovation  
in design*



*Bespoke  
solutions  
made easy*

Find Your perfect Heating Solution



Available with a total of seven output ratings from 30kW up to 200kW for internal or external mounting for operation on gas, LPHW or electric.

Incorporating high efficiency, low NO<sub>x</sub> pre-mix modulating burners, and EC plug fans as standard ensures high efficiency and minimum energy consumption is achieved.

Gas models are available for use with natural gas (G20), or LPG (G31). LPHW models can be configured to operate on boilers or heat pumps - just let us know your water flow & return temperatures. For those applications where gas is not available, an electric version of Vortex is available.

A wide range of optional equipment is available, enabling each unit to be configured to suit most applications.

#### Versatile

The Vortex range has been designed to offer installers a choice when replacing existing equipment, or installing as a new system.

The options for heat generation include gas (natural or LPG), LPHW (conventional boiler or heat pump) or electric. Whatever medium is selected the use of mixing dampers, filters etc still remains. Even cooling coils are an option.

#### Heat Exchanger

The heart of the gas fired models is a stainless steel heat exchanger, utilising a modulating pre-mix burner resulting in very low emissions and high thermal efficiencies in excess of 93.5% (ncv).

#### Ease of Installation

The compact size of Vortex has been specifically designed to enable it to replace a wide range of warm air heaters, in particular those connected to discharge air ducts, fresh air or both.

#### Construction

Vortex is constructed using 'penta post' framework with double skin insulated panels.

All units are mounted on a lightweight frame, which for the smaller units can be removed when installing the unit if needed to ensure ducts align etc.

#### Optional Equipment

A large number of optional accessories are available for the Vortex range including: panel air filters, inlet air dampers, damper motors, weather louvres, cooling coils etc.

#### Fan Efficiency

The fitted Plug fan offers optimal efficiency and maximum savings thanks to the integrated high efficiency inverter.

This enables the system to be pre-set prior to leaving the factory with the air volume & external static pressure requested. Further fine tuning can be carried out at commissioning if needed.

#### Benefits

- Compact nature makes Vortex ideal for replacing existing equipment
- Thermal efficiency in excess of 93.5% (ncv)
- Stainless steel heat exchanger with pre-mix burner
- Plug fan with integral inverter
- Modulating burner
- Wide airflow choice

### SPECIFICATION GUIDE - Vortex Gas Fired Models

Models		030	040	050	075	100	150	200
Heat Output	Maximum (kW)	30	40	50	75	100	150	200
	Minimum (kW)							
Air volume @15°C <sup>1</sup>	Maximum (m <sup>3</sup> /h)	4,200	6,200	8,000	11,000	14,000		
	Minimum (m <sup>3</sup> /h)	2,100	2,500	3,900	5,300	7,000		
Max external static pressure <sup>1</sup>	pa	350	350	350	350	350	350	350
Maximum gas consumption	Nat gas <sup>2</sup> G20 (m <sup>3</sup> /h)							
	LPG <sup>2</sup> G30 (kg/h)							
Gas connection	BSP	¾"	¾"	¾"	¾"	¾"		
Flue connections	mm							
Max cooling <sup>3</sup> duty (optional)	DX (kW)							
	Chilled water (kW)							
Motor size	Maximum (kW)							
	Minimum (kW)							
Rated power	A							
Maximum flue run	m							
Supply voltage	V	415V 3 Phase N & E						
Weight	kg							

1. Unit will be configured to provide air duty quoted; 2. Natural Gas @ 38.52 MJ/m<sup>3</sup>, LPG @ 93.2 MJ/m<sup>3</sup>; 3. Cooling duty available is dependent upon air duty

### SPECIFICATION GUIDE - Vortex LPHW Models

Models		030	040	050	075	100	150	200
Heat Output (80/60°C) <sup>1</sup>	(kW)							
Heat Output (35/30°C) <sup>1</sup>	(kW)							
Air volume @15°C <sup>2</sup>	Maximum (m <sup>3</sup> /h)							
	Minimum (m <sup>3</sup> /h)							
Max external static pressure <sup>2</sup>	pa							
Coil water capacity	litres							
Coil water pressure drop	pa							
Water connection	BSP							
Motor size	Maximum (kW)							
	Minimum (kW)							
Rated power	A							
Supply voltage	V							
Weight (no water)	kg							

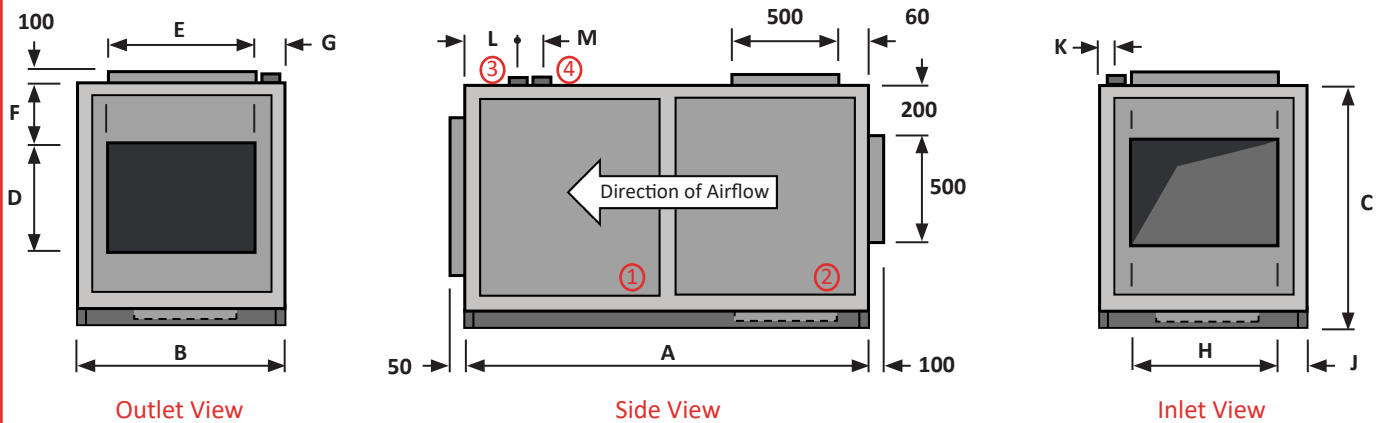
1. Water flow and return temperature; 2. Unit will be configured to provide air duty quoted.

### SPECIFICATION GUIDE - Vortex Electric Models

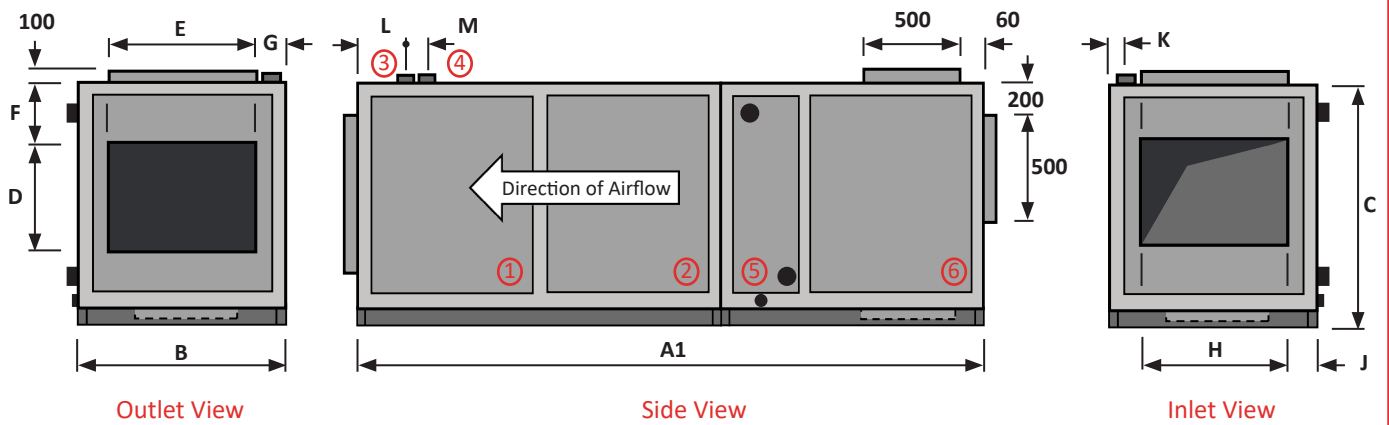
Models		030	040	050	075	100	150	200
Heat Output (80/60°C) <sup>1</sup>	(kW)							
Air volume @15°C <sup>2</sup>	Maximum (m <sup>3</sup> /h)							
	Minimum (m <sup>3</sup> /h)							
Max external static pressure <sup>2</sup>	pa							
Motor size	Maximum (kW)							
	Minimum (kW)							
Rated power	A							
Supply voltage	V							
Weight	kg							

## Dimensional Data

### Internal Gas Fired Model with Optional Dampers



### Internal Gas Fired Model with Optional Cooling Coil & Dampers



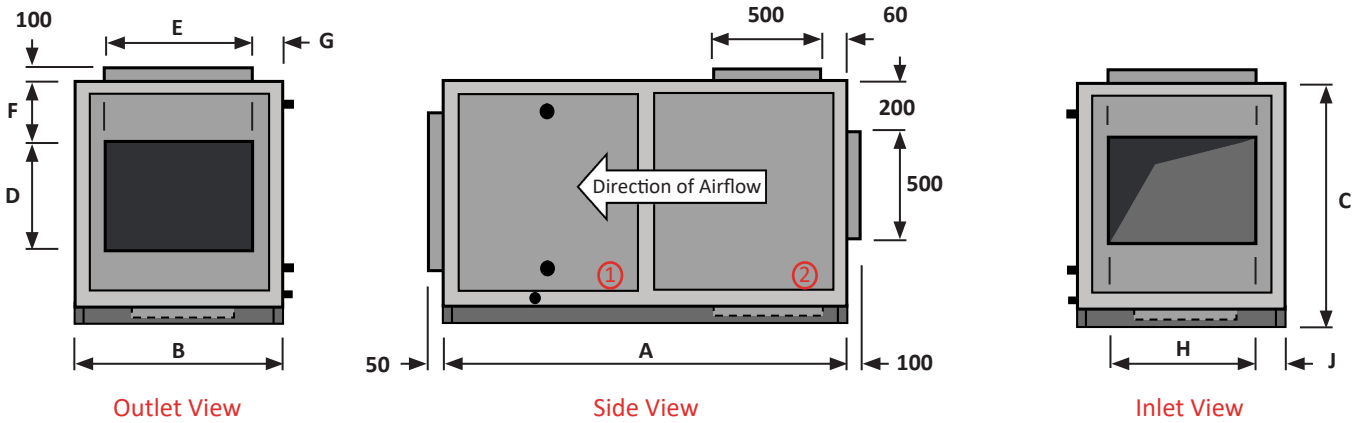
- ① Heating section      ③ Flue collar      ⑤ Cooling coil section
- ② Fan section      ④ Combustion air collar      ⑥ Mixing box section

### All Dimensions in mm

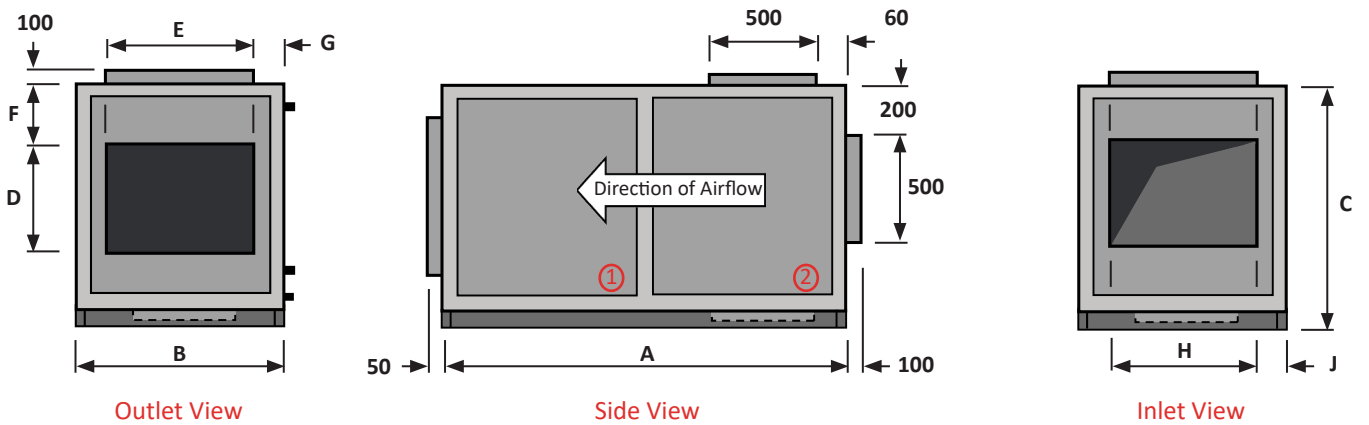
Gas Models	030	040	050	075	100	150	200
A	1500	1500	1500	1500	1500	1800	1800
A1	2850	2850	2850	2850	2850	3150	3150
B	600	700	850	1050	1350		
C	1000	1000	1000	1000	1000		
D	500	500	500	500	500		
E	400	550	670	890	1200		
F	200	200	200	200	200		
G	100	75	90	80	75		
H	440	580	720	930	1210		
J	80	60	65	60	70		
K							
L							
M							

**Dimensional Data**

**Internal LPHW Model with Optional Dampers**



**Internal Electric Model with Optional Dampers**



① Heating section      ② Fan section

**All Dimensions in mm**

Gas Models	030	040	050	075	100	150	200
A	1500	1500	1500	1500	1500	1800	1800
A1	2850	2850	2850	2850	2850	3150	3150
B	600	700	850	1050	1350		
C	1000	1000	1000	1000	1000		
D	500	500	500	500	500		
E	400	550	670	890	1200		
F	200	200	200	200	200		
G	100	75	90	80	75		
H	440	580	720	930	1210		
J	80	60	65	60	70		

**External Gas Fired Model with Optional Dampers**

**External Gas Fired Model with Optional Cooling Coil & Dampers**

**External LPHW Model with Optional Dampers**

**External Electric Model with Optional Dampers**



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