

# VPC Gas Cabinet Heater Range

Industrial & Commercial Heating Systems.



[www.powrmatic.co.uk](http://www.powrmatic.co.uk)



CE

HEATING // VENTILATION // AIR CONDITIONING

# VPC Overview

## Models Available

- **VPC UF** - Upright Freeblowing Unit
- **VPC UD** - Upright Ducted Unit

## Installer Friendly

- Low level flue discharge option (no roof work)
- Flue only or room sealed flue systems
- All units are fan assisted
- Site interchangeable top or side flue/combustion air spigot positions
- Plain side panel - provides greater flexibility in location
- Extended heads
- Factory fitted & pre wired controls available

## Peace Of Mind

- More than sixty years experience in warm air
- Two year parts and one year labour guarantee
- Ten year heat exchanger warranty



## Configuration

Powrmatic VPC gas-fired cabinet heaters are vertical in configuration and, dependent upon model, can be specified to provide on/off, high/low or modulated heat outputs.

## Efficiencies

Fuel usage and emissions are a key consideration within the VPC design. All heaters have efficiencies which meet or exceed the requirements of current UK Part L2B Building Regulations.

## Cabinet

Frame and panel construction, complete with a separate burner compartment accessed via a full width door and finished with hard wearing epoxy powder coat stove baked paint.

## Heat Exchanger

Four pass tubular assembly manufactured from aluminised steel formed, swaged and expanded without recourse to stress inducing welding. 409 and 316 grade stainless steel options available.

## Burners

Multi burner in-shot carefully matched to each tube assembly and manifolded to a common gas valve and ignition system, itself complete with flame monitoring and safety controls and supplied ready for use with Natural Gas (G20).

Alternative LPG propane (G31) firing available to order.

## Air Movement

Via dynamically balanced and resiliently mounted direct drive centrifugal fan sets. Freeblowing heaters are equipped with heads providing rotational and lateral jet direction and, where applicable, are of extended height. Heaters arranged for ducted applications are provided with an outlet spigot for the onward connection of ductwork.

## Controls

Heaters are supplied ready for automatic operation and are complete with safety and comfort controls. As standard heaters will be provided with the optimised entry code protected control MC200BL/MC300-Multi (mandatory for high/low and modulating applications) which includes a digital time switch, electronic day thermostat and frost protection thermostats. Remote temperature sensor option available.

Alternatively heaters may be specified with our Powrtrol control, a high temperature limit protection as well as a digital time switch, mechanical day temperature and night set-back thermostats.

For installer convenience heaters controls are factory fitted as standard but remote stations available as an option.

All heaters have the ability to provide 'fan only' summer air movement.

## Approvals

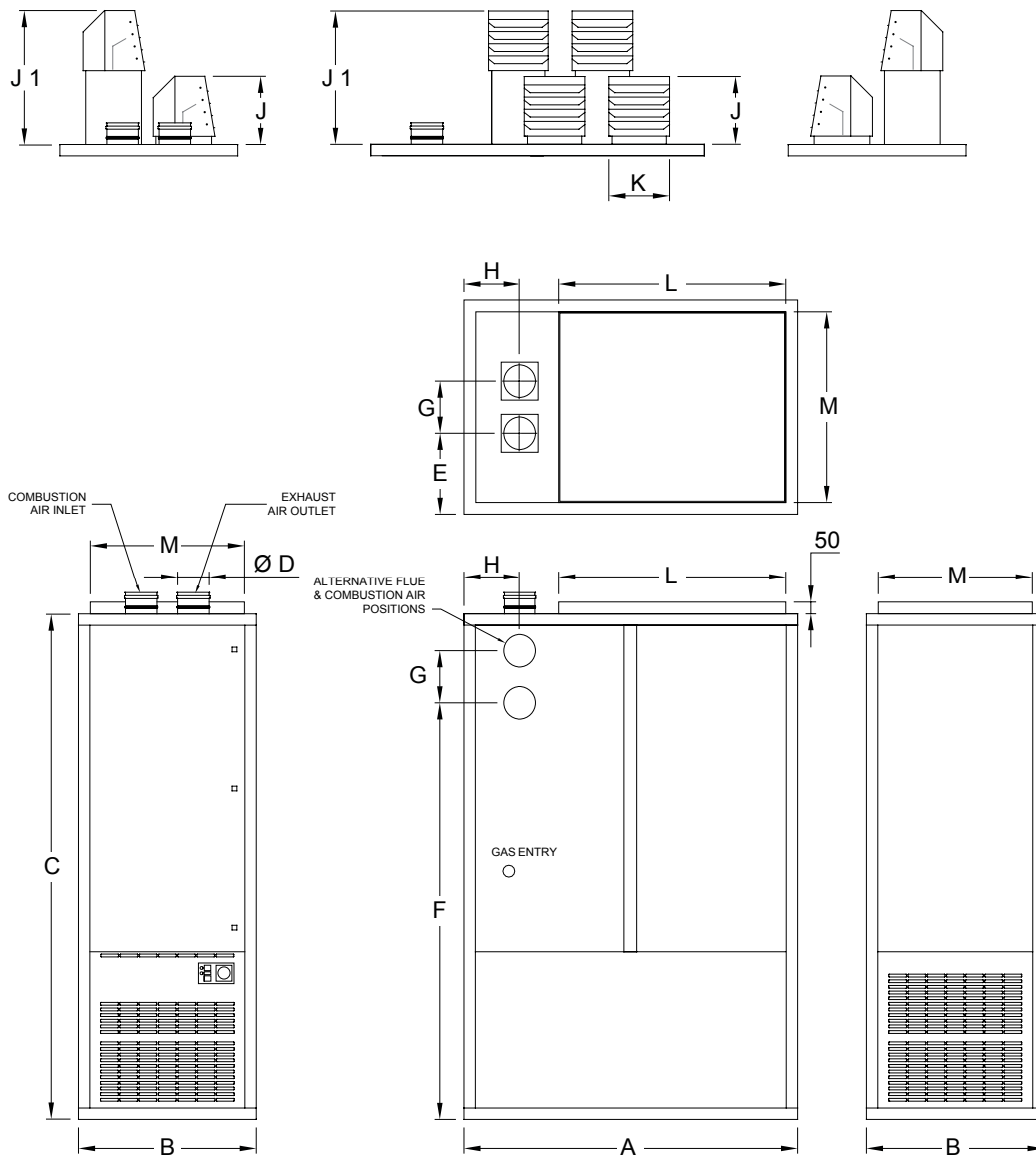
All Powrmatic heaters are type tested to meet the stringent requirements of the Gas Directive and are CE approved.

Model			30	52	80	110	130	
Output			kW	30	52	80	110	130
Input (nett CV)			kW	32.6	56.5	87.0	119.5	141.3
Volume			m <sup>3</sup> /s	0.87	1.59	2.34	2.96	3.63
Airflow	Heads		No.	3	3	4	4	4
	Throw		m	12.0	22.0	21.0	26.0	27.0
	Fan Static	Standard	Pa	150	200	225	150	200
		Up-rated	Pa	(Refer to Powmatic)				
Electrics	Supply	Standard	V/ph/Hz	230/1/50				
		Optional	V/ph/Hz	415/3/50				
	Standard Fan	Motor	kW	0.37	0.55	1.80	1 x 1.5	1 x 2.2
		Start	amp	6.5	9.2	20	28	40
		Run	amp	4.5	5.2	11.4	9.3	10.7
Fuel	Connection		BSP/Rc	¾"				
	Minimum Inlet Pressure	Nat Gas	mbar	20.0				
		LPG	mbar	37.0				
	Consumption	Nat Gas	m <sup>3</sup> /h	3.45	5.98	9.19	12.64	15.52
		LPG	m <sup>3</sup> /h	1.33	2.31	3.55	4.89	5.78
Overall Dimensions	UF Upright Freeblowing	Height	mm	2257	2713	2804	2715	2997
		Width	mm	750	750	750	750	750
		Depth	mm	1108	1108	1412	1767	1767
Installation Clearances	UF Upright Freeblowing	Front	mm	1000				
		Blank Side	mm	150				
		Louvred Side	mm	500				
		Rear	mm	500				
Flue	Diameter	mm ø	100			130		
	Maximum Length	Flue Only	m	12				
		Room Sealed	m	6				
Combustion Air Spigot			mm ø	100			130	
Noise Level			dB(A)	55.6	63.6	71.6	67.6	69.6
Nett Weight			kg	178	248	305	362	410

### Notes -

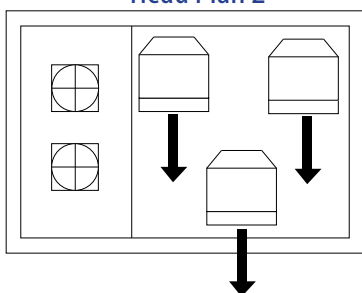
- Fuel consumption and output figures based upon nett calorific values as follows
  - Natural gas (G20) nett CV 34.02 MJ/m<sup>3</sup>
  - Propane (G31) nett CV 88.00 MJ/m<sup>3</sup>
- Heaters have efficiency levels which meet with the minimum efficiency requirements of UK PartL2B Building Regulations
- Air handling data is assessed at room ambient conditions
- Throw figures provide the distance to the point where the terminal velocity degrades to 0.25 m/s
- Overall vertical heater height include heads or extended heads where appropriate
- Standard height heads can be specified where site height is restricted
- Blank and louvred lower side panels are interchangeable
- Noise levels are applicable to standard UF models and are measured 5m from appliance and in free field conditions
- Motor kW, run and start amps apply to standard electrical supply as stated. For optional data contact sales office
- Flue and combustion air maximum runs for guidance purposes only. Please refer to installation instructions for detailed information
- Connection of combustion air duct is not required for 'flue only' applications
- It is the responsibility of the installing contractor to ensure that ductwork is correctly sized and balanced when installing ducted units
- Installer guidance notes on rear page

# Dimensions

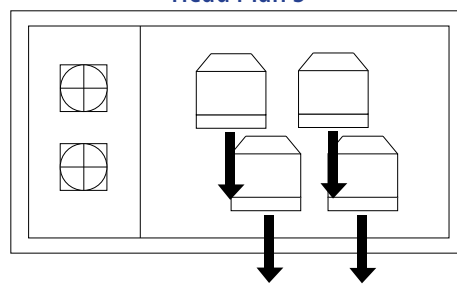


Model	A	B	C	D	E	F	G	H	J	J1	K	L	M	Head Plan
30	1108	750	1676	100	265	1378	142	237	286	581	256	657	650	2
52	1108	750	2132	100	265	1832	142	237	286	581	256	657	650	2
80	1412	750	2132	130	265	1756	220	237	340	672	308	960	650	3
110	1767	750	2043	130	265	1667	220	237	340	672	308	1315	650	4
130	1767	750	2209	130	265	1835	220	237	400	788	358	1315	650	3

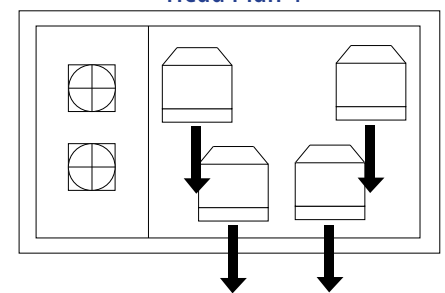
Head Plan 2



Head Plan 3

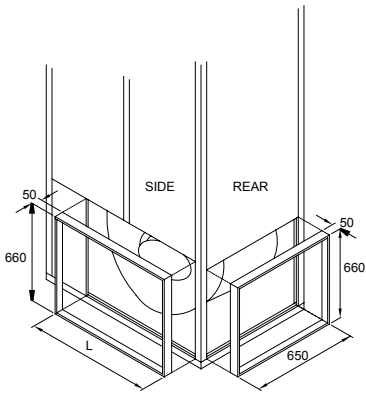


Head Plan 4

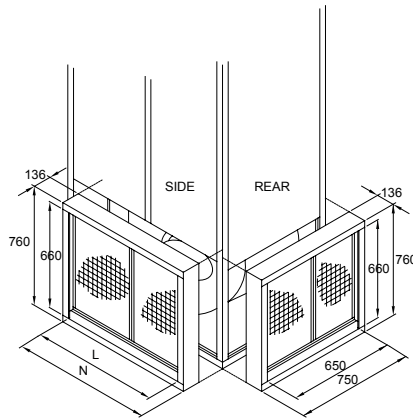


# Dimensions

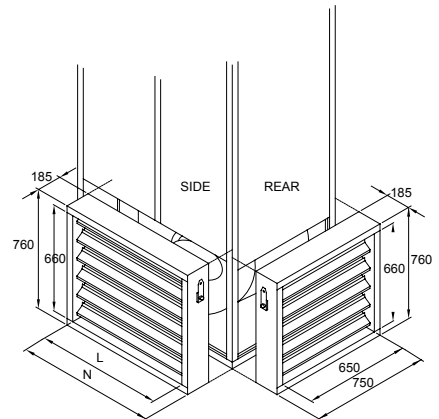
Side / Rear Inlet Spigot



Side / Rear Filters



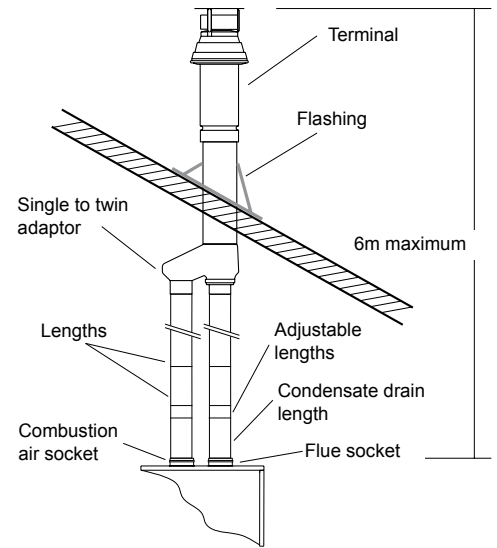
Side / Rear Dampers



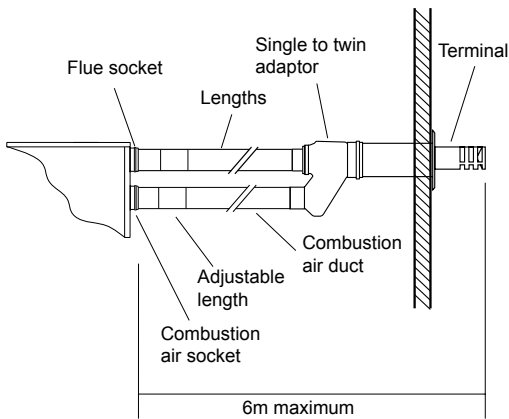
Model	30	52	80	110	130
L	657		960		1315
N	757		1060		1415

# Flue Arrangements

## Room Sealed - Vertical Flue System



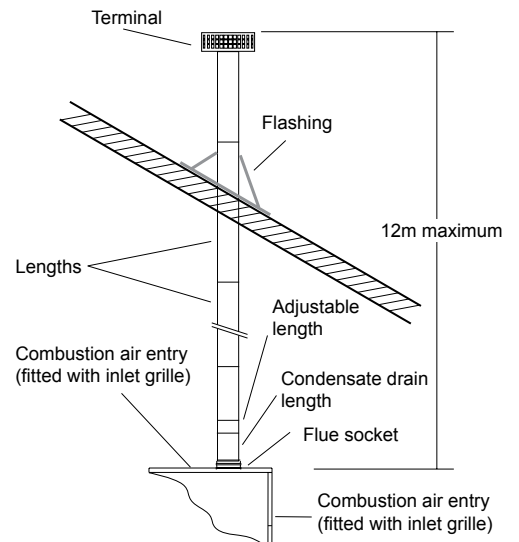
## Room Sealed - Horizontal Flue System



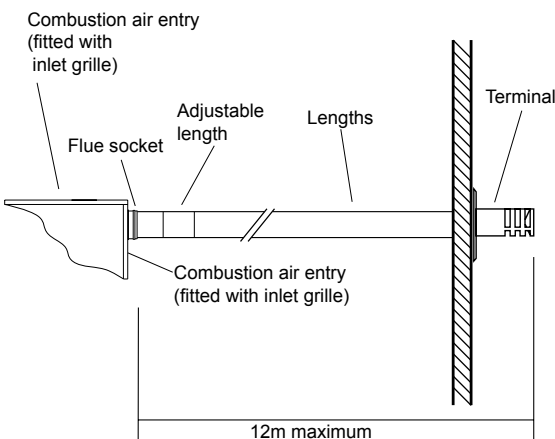
**Notes for all systems:**

1. Final overall length of adjustable disconnection piece must be between 360-415mm.
2. 45° offsets may be used if required. Each set is equivalent to 0.5m of flue length.
3. Where VPC heaters are used in clean environments it is permissible to take the combustion air directly from the heated space. The supplied mesh intake plate must be fitted to the combustion air inlet on the rear of the heater.

## Flue Only - Vertical Flue System



## Flue Only - Horizontal Flue System



## General

The following notes are provided as a guide, however installers and operators should fully acquaint themselves with the more detailed guidance provided in the relevant installation manual. For copies of such manuals please consult our technical department or visit our website - [www.powrmatic.co.uk](http://www.powrmatic.co.uk)

## Standards

All Powrmatic VPC heaters must be installed, commissioned and operated with due regard to appropriate regulations including but not limited to BS 6230, relevant Codes of Practice, the possible requirements of Local Authorities, Fire Officers and insurers as well as the installation manual.

## Position & Location

Heaters should be installed on a level non-combustible base. Consideration should also be given to flue routes and points of exit, gas, electrical and where applicable control connections, the throw characteristics of the heater, issues of public access and in the instance of remote temperature sensors the position need to be representative of the zone temperature to which they refer.

Heaters should not be installed in hazardous areas or areas where there is a foreseeable risk of flammable or corrosion inducing particles, gases or vapours being drawn into the combustion air or main fan circuits.

Areas where special consideration or advice may be required could include but is not limited to -

- Where de-greasing solvents are present, even in minute concentrations
- Where paint spraying is carried out
- Where styrenes or other laminating products are used
- Where airborne silicone is present
- Where petrol engined vehicles are stored or maintained
- Where dust is present (i.e. wood working or joinery shops)
- Where high levels of extract persist

Installation in such areas may be possible under specific conditions. Please consult our technical department for further information.

## Plant Room or Enclosure Locations

Specific requirements exist where heaters are to be installed within plant rooms or enclosures. Such requirements cover the provision of positive ductwork connections as well as ventilation for combustion air and general plant room or enclosure ventilation. It is recommended that you consult with our technical department or the installation manual prior to installation.

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## Combustion Air & General Ventilation

Within the United Kingdom mandatory regulations apply concerning the provision of combustion air and general heater ventilation. Where a heater is installed in room sealed mode (ie where both the flue exit and combustion air and positively connected to atmosphere) then there is no specific requirement for combustion air ventilation. However, depending upon location, provision for general ventilation may still be a necessity.

If the heater is installed in flue only mode and directly within the heated space and where that heated space has a natural ventilation rate greater than 0.5 air changes per hour then combustion air and general heater ventilation is probably not required. If the heated space has a natural ventilation rate of less than 0.5 air changes per hour then either natural ventilator openings or mechanical ventilation will be required. Please consult the installation manual for further details.

## Installation Clearances

Particular clearances may be necessary for the correct and safe function of the heater as well as for maintenance purposes. Such clearances are confirmed in the relevant installation manual.

## Flue

Powrmatic VPC heaters can be installed in either room sealed or flue only mode. Each heater requires a separate flue and/or combustion air intake system of the appropriate size and type. Installers are reminded that type approval has been granted for these appliances on the basis that they are fitted with Powrmatic VPC flue systems. Maximum lengths apply and should be strictly observed.

Systems may be installed in either the horizontal or vertical plane. In either case the number of bends kept to a minimum and regard must be given to the reduction in permissible length with the addition of each bend. The flue must be adequately supported and terminated with the approved terminal assembly, with due regard to the point of exit and it's proximity to any windows, doors or ventilation intakes etc.

## Pipework

Care should be taken when sizing pipework to ensure that minimum gas inlet pressures are not compromised under dynamic load conditions. Isolating valves and service unions should be provided for each heater and pipework installed with due regard for relevant standards and Codes of Practice.

## Guarantee

Powrmatic VPC heaters are provided with a comprehensive guarantee covering both the heater and the heat exchanger. For United Kingdom sales the heater has the benefit of a two year parts and one year labour guarantee whilst the heat exchanger assembly has a ten year time related warranty. All guarantees are subject to terms and conditions.

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