

# *warmatic*

EFFICIENT CLIMATE SOLUTIONS



# Zephr.

Gas & Oil Fired Cabinet Heaters

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## Gas & Oil Fired Cabinet Heaters

The Zephr range of cabinet heaters combine innovative design with proven heat exchanger technology to provide a high efficiency cost effective and durable range.

The units may be specified for either free blowing applications or for use with ductwork.

### Model Range

Gas fired cabinet heaters are suitable for use with Natural Gas (G20), most units can also be specified for Propane (G31).

Oil fired cabinet heaters are suitable for use with Class D gas oil (35 sec). Oil fired cabinets are supplied with a fire valve and an oil filter as loose components.

Vertical freestanding models are available from 30kW to 300kW. Contact Warmatic for larger outputs.

Modulating and two stage burners are controlled via standard control panel (supplied loose).

### Air Distribution

EC Plug fan(s) circulate large air volumes evenly across the full heat exchanger surface for enhanced life expectancy.

Free blowing heaters are supplied with (loose) long throw discharge nozzles complete with horizontal louvers and can be rotated through 360°. Models 30-300 are supplied with a raised rear nozzle.

Ductwork can be fitted directly to the top of those heaters requiring ducted discharge.



### Specification

#### Cabinet

Cabinets are constructed using sheet metal frame construction with profiles in galvanised powder painted panels to form a rigid and durable casework. Panels for the heating section are provided with internal insulation along with inner heat shields manufactured from aluminised steel.

#### Electric Motors

All electric motors comply with EC motor directive 2005/32/EC. This provides better overall electrical efficiency and a more consistent airflow across the heat exchanger. Also improving the overall heat exchanger efficiency.

#### Heat Exchanger

Inversion combustion chamber with four pass heat exchanger assembly provides improved thermal efficiency with extended life expectancy. The 304 stainless steel combustion chamber is combined with a high efficiency flat tube heat exchanger to achieve combustion efficiencies of up to 94% (ncv). The complete assembly is mounted to allow for thermal expansion, thereby avoiding undue thermal stress and premature heat exchanger failure.

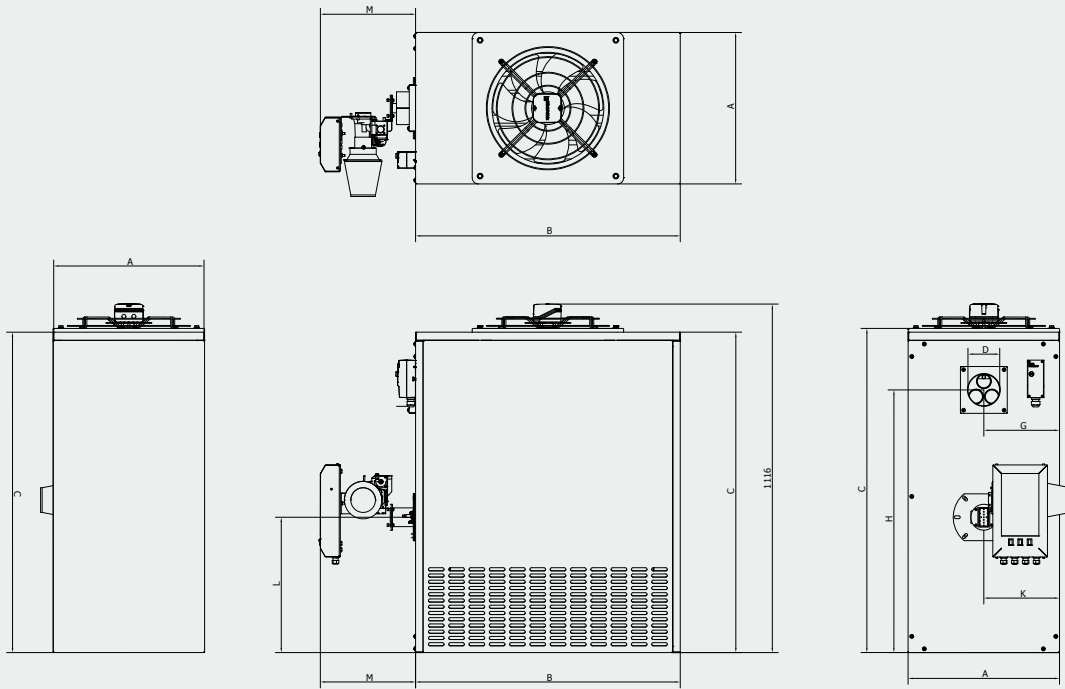
#### Burner

Gas fired units are supplied with a fitted high/low fully automatic forced draught burner complete with full safety controls to EN676. Heaters are CE certified and UKCA approved.

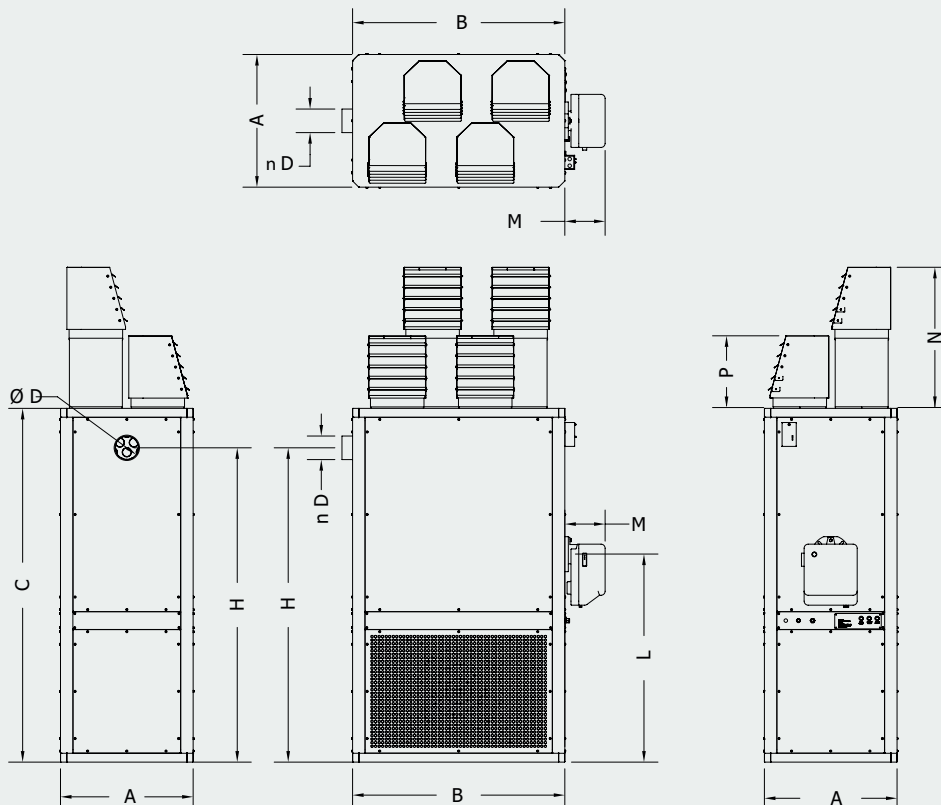
Oil fired units are also supplied with a fitted high/low fully automatic burner including safety controls. Fire valve and oil filter are supplied as loose components. An additional external fire valve may be required in accordance with BS 410: Part2:1978.

## Dimension details

# Model 30wmi



# Model 45-300wmi



## Technical Data

		MODEL									
		30	45	60	90	120	150	180	210	260	300
Nominal heat output	kW	30	45	60	90	120	150	180	210	260	300
Heat Input	kW	32	48	64	96	128	160	193	225	278	321
Temperature rise	oC	33	41	41	41	41	41	41	41	39	41
Thermal Efficiencies (Nett CV)	%	MIN 92%									
NOx Seasonal	mg/kWh	59.3	58.2	62.3	65.3	62.1	65.9	61	63.5	65.36	66.2
<b>Gas Fired</b>											
Gas Consumption Nat Gas (G20)	m <sup>3</sup> /h	3.00	4.50	6.00	9.00	11.99	14.99	17.99	20.99	25.99	29.99
Gas Consumption Propane (G31)	m <sup>3</sup> /	1.24	1.86	2.48	3.72	4.96	6.20	7.44	8.67	10.74	12.39
Minimum dynamic inlet pressure Nat Gas (G20)		17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Minimum inlet pressure Propane (G31)		37	37	37	37	37	37	37	37	37	37
Gas Connection	Rc	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	11/4"	11/4"	11/4"	11/2"
<b>Oil Fired</b>											
Oil Consumption (35sec)	l/h	2.96	4.44	5.91	8.87	11.83	14.79	17.74	20.70	25.63	29.57
Oil Connection	Rc	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
<b>Air Handling Data</b>											
Airflow	m <sup>3</sup> /h	2700	3276	4392	6552	8712	10944	13104	15264	19656	21816
Airflow	m <sup>3</sup> /s	0.75	0.91	1.22	1.82	2.42	3.04	3.64	4.24	5.46	6.06
Nozzled Throw	m	24	26	26	29	32	38	44	46	47	48
External Static Pressure (Ducted)	Pa	250	250	250	250	250	250	250	250	250	250
Fan	kW	0.65	0.65	0.8	1.2	2.5	2.5	3	3.5	4	5
Full Load Current	A	1.2	1.2	2.3	3.9	4.1	4.5	4.8	5.5	6	7.8
<b>General Data</b>											
Electrical Supply	Volts	415	415	415	415	415	415	415	415	415	415
Nominal Flue diameter	mm	100	130	130	130	130	130	250	250	250	250
Noise level @ 5m	db(A)	58	58	62	72	72	75	76	77	78	79
Net Weight	kg	259	338	343	354	385	458	497	543	574	598

## Dimensions (mm)

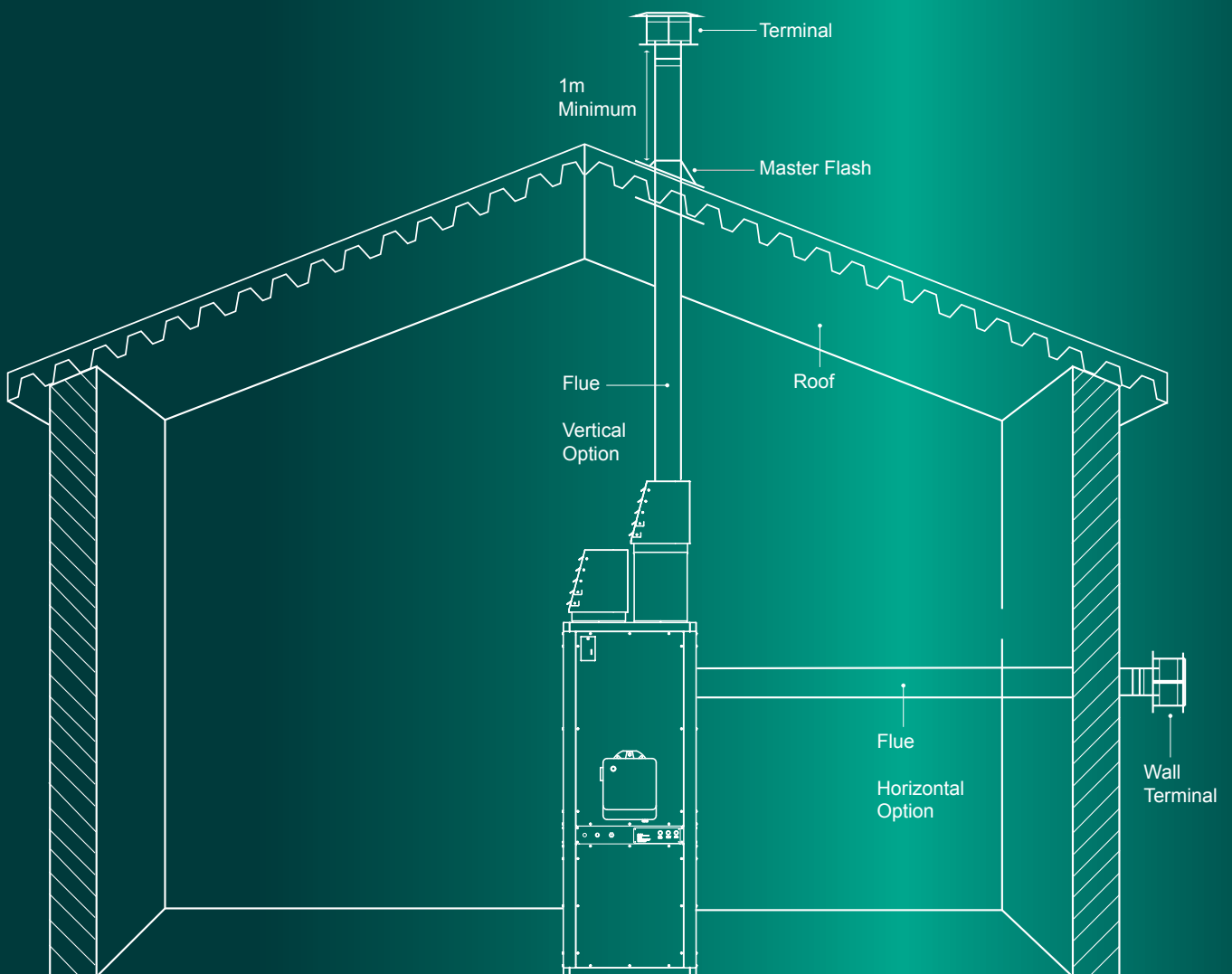
	MODEL									
	30	45	60	90	120	150	180	210	260	300
A - Unit Width	485	750	750	750	750	750	950	950	1150	1150
B - Unit Depth	848	950	950	950	1200	1200	1400	1400	1600	1600
C - Unit Height	1038	2000	2000	2000	2000	2000	2250	2250	2250	2250
D - Flue Diameter	100	130	130	130	130	130	200	250	250	250
E - Intake Duct	POA	698	698	698	698	698	1260	1260	1460	1460
F - Intake Duct	POA	810	810	810	1060	1060	1060	1060	1060	1060
G - Flue Centre	243	375	375	375	375	375	475	475	575	757
H - Flue Height	1038	1777	1777	1777	1777	1777	1970	1970	1970	1970
K - Burner Centre	243	375	375	375	375	375	475	475	575	575
L - Burner Height	433	1176	1176	1176	1176	1176	1250	1250	1250	1250
M - Burner Protrusion	305	230	230	230	230	230	560	560	560	560
N - Ext Nozzel Height	N/A	798	798	798	798	798	949	949	949	949
P - Nozzel Height	N/A	409	409	409	409	409	547	547	547	547

## Installation

### Horizontal flue

Option for horizontal flue termination to model 150, flue size is 130mm.

Please note: The correct horizontal flue terminal can be supplied by **Warmatic**.



The horizontal flue installation allows for reduced flue run as there is no requirement to install the flue to the top of the building as with normal conventional flue systems, saving on time and flue materials for the installing contractor

For further information please see the heater manual.

## About Us

Warmatic Limited are a British manufacturer, offering bespoke efficient climate solutions to the commercial industry, in order to help our client's achieve their desired environmental conditions.

Established in 2020 by two work colleagues that have vast experience within the HVAC and manufacturing industry, our business operates on two main core values;

**To build and maintain long-term customer relationships**

**To fulfill the demands of our client by producing high quality and efficient products**

We specialise in the design and manufacture of bespoke air handling and temperature controlled units such as AHU's (heat pump and DX cooling), gas fired modules, gas fired cabinet heaters, direct and indirect gas fired heaters, air rotation units and de-stratification fans. We also offer bespoke designs to replace existing units, with the option of flat pack delivery to assist in areas of restricted access.

Our products are constantly reviewed in order to ensure we operate at the highest engineering standard whilst also considering our environmental impact. Global warming is at the forefront of our designs in order to help reduce the amount of carbon emissions from our products. We achieve this by using condensing gas fired technology and alternative fuel sources such as heat pumps and hydrogen technology.

We are immensely proud of what we produce. Our stringent quality process and attention to detail is what sets us apart from our competitors. Assisted by our dedicated and talented team who use state of the art design technology, Warmatic also offer a high level of technical advice and site support throughout a project to ensure our clients requirements are achieved.

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