

OUH Suspended Oil Unit Heater

Industrial & Commercial Heating Systems.



www.powrmatic.co.uk



CE

HEATING // VENTILATION // AIR CONDITIONING // OEM PRODUCTS

OUH Overview

Models Available

- **OUH F** - Freeblowing Oil Unit Heater
- **OUH C** - Centrifugal Oil Unit Heater

Installer Friendly

- Compact
- Stainless steel combustion chamber/heat exchanger as standard
- Riello burners
- 35 and 28 second fuel oil options
- Axial fan versions for freeblowing applications
- Centrifugal fan option for ducted applications

Caring For The Environment

- High efficiency
- Biofuel options

Peace Of Mind

- More than sixty years experience in warm air
- Two year parts and one year labour guarantee
- Ten year time related sliding scale combustion chamber/heat exchanger warranty

Configuration

Powrmatic OUH oil fired unit heaters can be supplied in axial fan freeblowing format, to be installed directly into the space to be heated, or with centrifugal fan for ducted applications. Heaters are generally arranged for on/off operation however they may also be specified with high/low heat output.

Efficiencies

Fuel usage and emissions are a key consideration. Additionally, all heaters have efficiencies which meet or exceed the requirements of current Building Regulations.

Cabinet

Of unitary construction and finished with hard-wearing epoxy powder coat stove baked paint.

Combustion Chamber/Heat Exchanger

Manufactured from 304 grade stainless steel and life cycle tested to ensure long service life.

Burners & Fuel Options

The OUH units are supplied as standard for use with 35sec fuel and can be supplied for use with 28sec fuel as an option. In accordance with guidelines from our burner supplier, Riello, the burners fitted to Powrmatic oil-fired heaters are suitable for fuels with a bio content of up to 10% only (B10). For fuels with a bio content of more than 10% or other variations of standard 35sec and 28sec oil please consult our Technical Department.

All OUH heaters have the benefit of fire safety valve and oil filter (supplied loose).



Air Movement

Freeblowing models are fitted with axial fan sets and discharge warmed air directly into the heated space via adjustable louvred horizontal grilles. Centrifugal fan models are fitted with a centrifugal fan close-coupled directly to the heater casing.

Controls

Heaters, as standard, are provided with high temperature limit protection as well as connections for both heat and where applicable, fan only operation. Heaters may be connected to our compatible environmental control stations which are themselves available in two options. The Powrtrol control station provides a digital timeswitch with mechanical day and frost protection thermostats and switching options to enable 'fan only' operation for summer air movement.

Alternatively heaters may be specified with MC200V3 controls, a tamperproof digital control that features a optimised start and stop digital time switch, electronic day thermostat and frost protection thermostat. Remote temperature sensor option available.

Interconnecting wiring for all controls is the responsibility of the installer. All heaters have the ability to provide 'fan only' summer air movement

Approvals

The Powrmatic OUH is CE approved.

Duties

OUH F / OUH C

Model			20	30	45	60	
Output			kW	20	30	45	60
Input (nett CV)			kW	21.92	32.15	49.40	65.57
Airflow	Volume		m ³ /s	0.58	0.68	1.08	1.41
	Throw	OUH F	m	8.5	16	25	34
	Fan Static	OUH C	Pa	140	187	100	50
Electrics	Supply	Standard	V/ph/Hz	230/1/50			
		Optional	V/ph/Hz	415/3/50			
	OUH F	Motor	kW	0.24	0.13	0.27	0.76
		Start	amp	2.26	1.14	2.44	6.65
		Run	amp	0.94	0.50	1.06	2.90
	OUH C	Motor	kW	0.37	1.10	1.10	1.10
		Start	amp	6.50	18.0	18.0	18.0
		Run	amp	4.20	7.20	7.20	7.20
	Fuel Oil	Connection		BSP/Rc	1/4		
Consumption		l/h	2.17	3.19	4.89	6.51	
Mounting Height	OUH F	Min	m	2.50		3.00	
		Max	m	3.00		5.00	
Overall Dimensions	Height		mm	880	1117	1117	1117
	Width		mm	555	780	780	780
	Depth	OUH F	mm	753	1106	1118	1140
		OUH C	mm	1038	1469	1469	1469
Installation Clearances	Top		mm	1000			
	Side		mm	500			
	Rear		mm	400			
Flue diameter			mm ø	100	125		
Combustion Air Spigot			mm ø	150			
Maximum Combustion Duct Length *			m	120	100	81	21
Noise Level - OUH F models			dB(A)	46	54	52	53
Nett Weight	OUH F		kg	53	126	126	126
	OUH C		kg	91.5	142	142	142

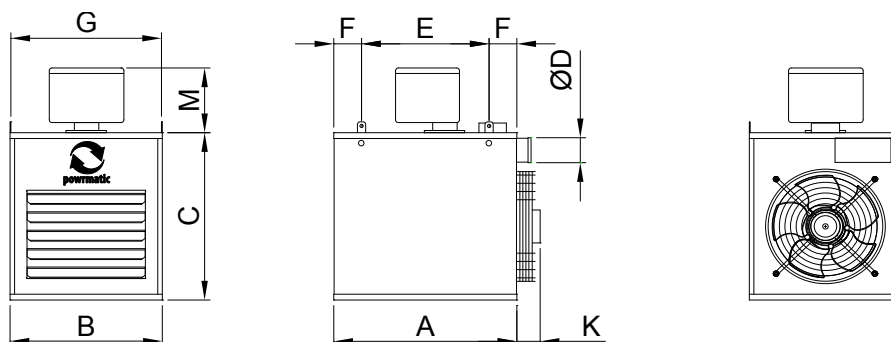
* For extended combustion duct lengths please contact Powrmatic

Notes –

- Fuel consumption and input figures based upon nett calorific value as follows:
Class D light distillate fuel oil Nett CV 36.28 MJ/l
- Heaters have efficiency levels which meet with the minimum heating efficiency requirements of UK Part L 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
- Noise levels refer to OUH F axial fan models and 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
- Combustion air spigot is an optional extra
- Installer guidance notes on rear page

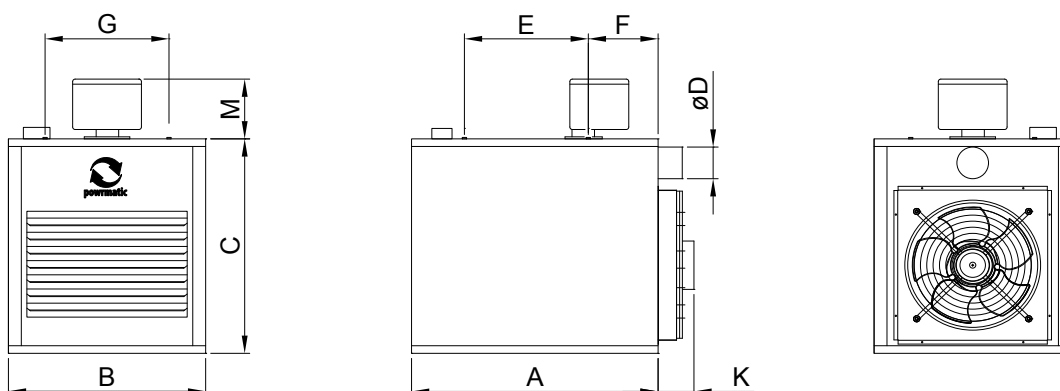
Dimensions

OUH F 20 - Axial Fan



Model	A	B	C	D	E	F	G	K	M
OUH F 20	668	555	610	100	465	101	549	85	270

OUH F 30/45/60 - Axial Fan



Model	A	B	C	D	E	F	G	K	M
OUH F 30	975	780	847	125	490	276	490	131	270
OUH F 45	975	780	847	125	490	276	490	143	270
OUH F 60	975	780	847	125	490	276	490	165	270

Controls

The OUH oil unit heater can be controlled using either our Powtrol or our MC200V3 controls. Multiple units can be controlled using our selection of RBR relay boxes.

Powtrol/RR



MC200V3



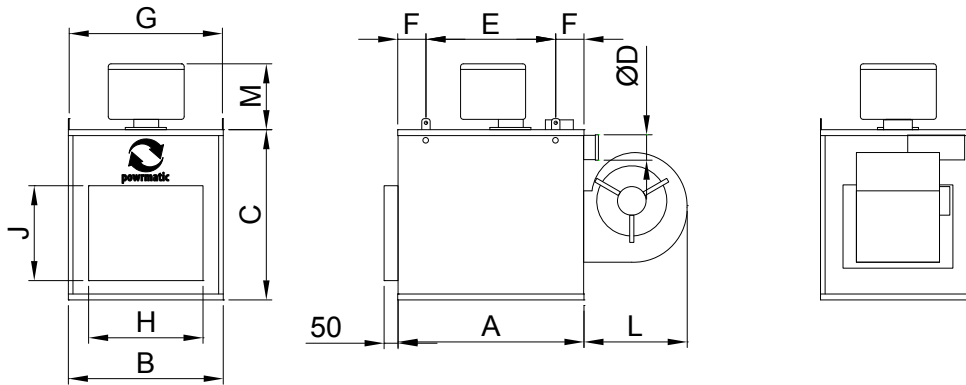
RBR Relay Boxes



RBR2 shown - control up to 2 units.
Other RBR relay boxes available to control up to 4,6 or 8 units

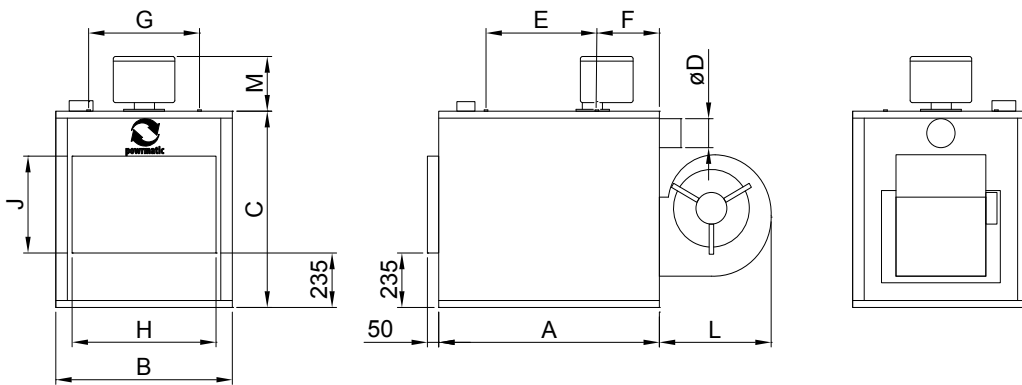
Dimensions

OUH C 20 - Centrifugal Fan



Model	A	B	C	D	E	F	G	H	J	L	M
OUH C 20	668	555	610	100	465	101	549	410	340	370	270

OUH C 30/45/60 - Centrifugal Fan



Model	A	B	C	D	E	F	G	H	J	L	M
OUH C 30	975	780	847	125	490	276	490	636	418	494	270
OUH C 45	975	780	847	125	490	276	490	636	418	494	270
OUH C 60	975	780	847	125	490	276	490	636	418	494	270

Flue (System 1 Stainless Steel Flue Only)

Component	100mm dia	125mm dia
Standard cowl	801101603	801121603
1500mm length	n/a	801120153
970mm length	801100093	801120093
470mm length	801100043	801120043
938mm change over section	801105003	801125003
438mm change over section	801105103	801125103
297-466mm adjustable	801104403	801124403
447-700mm adjustable	801104503	801124503
Locking band	801101803	801121803
45° elbow	801101003	801121003
90° elbow	801101203	801121203

Component	100mm dia	125mm dia
90° tee	801100703	801120703
135° tee	801100603	801120603
Tee cap	801100503	801120503
Tee cap with drain	801100513	801120513
Wall fixing bracket	801102304	801122304
Wall support	801103204	801123204
Support plate & clamp	801103504	801123504
Storm collar c/w sealant	801102605	801122605
Universal flashing	ufc01400a	ufc01400b
High temperature flashing inc kit	800014026	800014026
Wall band (s/s) - external	ufc027100	ufc027125

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

Standards

All Powrmatic OUH heaters must be installed, commissioned and operated with due regard to appropriate regulations, relevant Codes of Practice, the possible requirements of Local Authorities, Fire Officers and insurers as well as Powrmatic's installation manual.

Position & Location

Powrmatic OUH heaters can be 'drop rod' suspended via purpose designed M10 suspension fixing points, attached to our optional wall support brackets or positioned on a level non-combustible base. In all cases it is important that all supporting structures have due regard to the relevant weight loadings.

Consideration should also be given to flue routes and points of exit, oil, electrical and control connections, the throw characteristics of the heater, issues of public access and the siting of environmental control stations and/or remote temperature sensors where the position needs 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 (ie 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.

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Plant Room or Enclosure Locations

It is possible to install centrifugal fan variants of the OUH heater within plant rooms or enclosures however specific requirements may need to be applied. 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.

Combustion Air & General Ventilation

Within the United Kingdom mandatory regulations may apply concerning the provision of combustion air and general heater ventilation. If the heater is installed 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

Each heater requires a separate flue system of the appropriate size. The flue should essentially be installed in the vertical plane and the number of bends kept to a minimum. The flue must be adequately supported and terminated with a suitable cowl, 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 maximum oil 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 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. The combustion chamber/heat exchanger has a ten year time related sliding scale warranty.

All guarantees are subject to terms and conditions.

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