

Euron



Compact Wall Mounted Gas Fired Condensing Boilers and Combis with Outputs 24kW - 30kW

MHS
BOILERS

Compact, Efficient & Easy to Install & Maintain

The Euron® range of wall mounted gas fired condensing boilers includes both system boilers and a combination boiler version. All of the units utilise a well proven helical stainless steel tube heat exchanger with a fully modulating radiant premix burner for high efficiency, low emissions and controllability.

There are two heat output options within the Euron® range giving the following performance at 50/30°C.

Euron® HG 24 System Boiler (6.1 - 23.6kW)

Euron® HG 30 System Boiler (7.2 - 29.2kW)

Euron® HSG 30 Combination Boiler (7.2 - 29.2kW)

The Combination Boiler version can deliver instantaneous hot water up to 11.91l/m raised through 35°C. All appliances in the range may be room sealed using small diameter flue components and can be used singly or may be installed in multiple groups under the control of a cascade manager.

Each boiler is supplied with a wall mounting bracket that is complete with heating circuit flow and return isolation valves, gas valve, water supply isolation valve (combi only) and preformed copper tube connection tails.



Put your mind at rest

It's easy to ignore your boiler - until it goes wrong or breaks down. A system failure, especially one caused by lack of maintenance, can be inconvenient and costly.

It isn't hard to imagine the difficulties that problems with your heating system can cause. And in some situations lack of heating and hot water can be critical. Similar to your car, a regularly maintained heating system will run more efficiently and any potential problems can be resolved before they develop into major system failure.

Financially, planned maintenance makes sense too. It avoids major capital outlay and the associated costs of system down time - plus it can keep your fuel costs down as well as ensuring you are minimising your emissions.

At MHS Boilers we provide a lifetime maintenance and service solution for your heating system - enabling you to rest safe in the knowledge that we'll take care of it.

Go to **www.mhsboilers.com** and download or request a copy of our **Maintenance and Service Solutions** brochure.



Our highly skilled and trained service and technical support engineers are only a phone call away

Standard features

Low emission premix burner

Euron® Boilers incorporate a metal fibre sheathed radiant premix burner which modulates through a nominal turndown range of 4:1. High combustion efficiency, coupled with low emissions is inherent with the use of the premix principle. NOx emissions are further reduced by the radiant effect of the burner surface which avoids that the nitrogen content of the air entrained for combustion is excessively heated and oxidized. The Euron® Boiler has a NOx Class 5 rating.

Direct-on-boiler weather compensation

Included with each boiler is an outside air temperature sensor which, if installed, will allow weather variable flow temperatures to be delivered to the heating system. This feature, if utilised not only can enhance the comfort of the heating system but also will contribute significantly to the operational efficiency of the Euron® Boiler.

Extensive flue lengths

Euron® boilers have an over-pressure of up to 110 Pa at the flue connection, allowing the appliances to be exhausted over considerable distances with or without a room sealed air supply. Low diameter polypropylene (PP plastic) material may be used. An extensive range of flue components, wall and roof terminals are available.

Optional matched controls for best efficiency and comfort

A single boiler installation may be enhanced by the use of a programmable modulating room unit (QAA73) which provides optimum comfort control over the room temperature and matches boiler output to room demand.

HWS programming is also possible from the room unit, plus the ability to retrieve system status information. For multiple boiler installations of up to 12 modules, a cascade manager (RVA47) is available which may interfaced with a room unit if required. In addition various control expansion clip-in modules may be added to a single boiler to allow control over additional zones and or accept analog control inputs.

High Efficiency Stainless Steel Heat Exchanger

At the heart of the appliance is a well proven helical tube type heat exchanger fabricated from corrosion resistant stainless steel.

Important information with regard to Part L2 of the Building Regulations

Calculated in accordance with the formula given in the Non domestic heating, cooling and ventilation compliance guide (Compliance with Approved Documents L2A & L2B), the Euron® Boilers have Gross Seasonal Efficiencies of:
Model HG 24 = 95.50%
Model HG 30 & HSG 30 = 95.10%



Technical Data

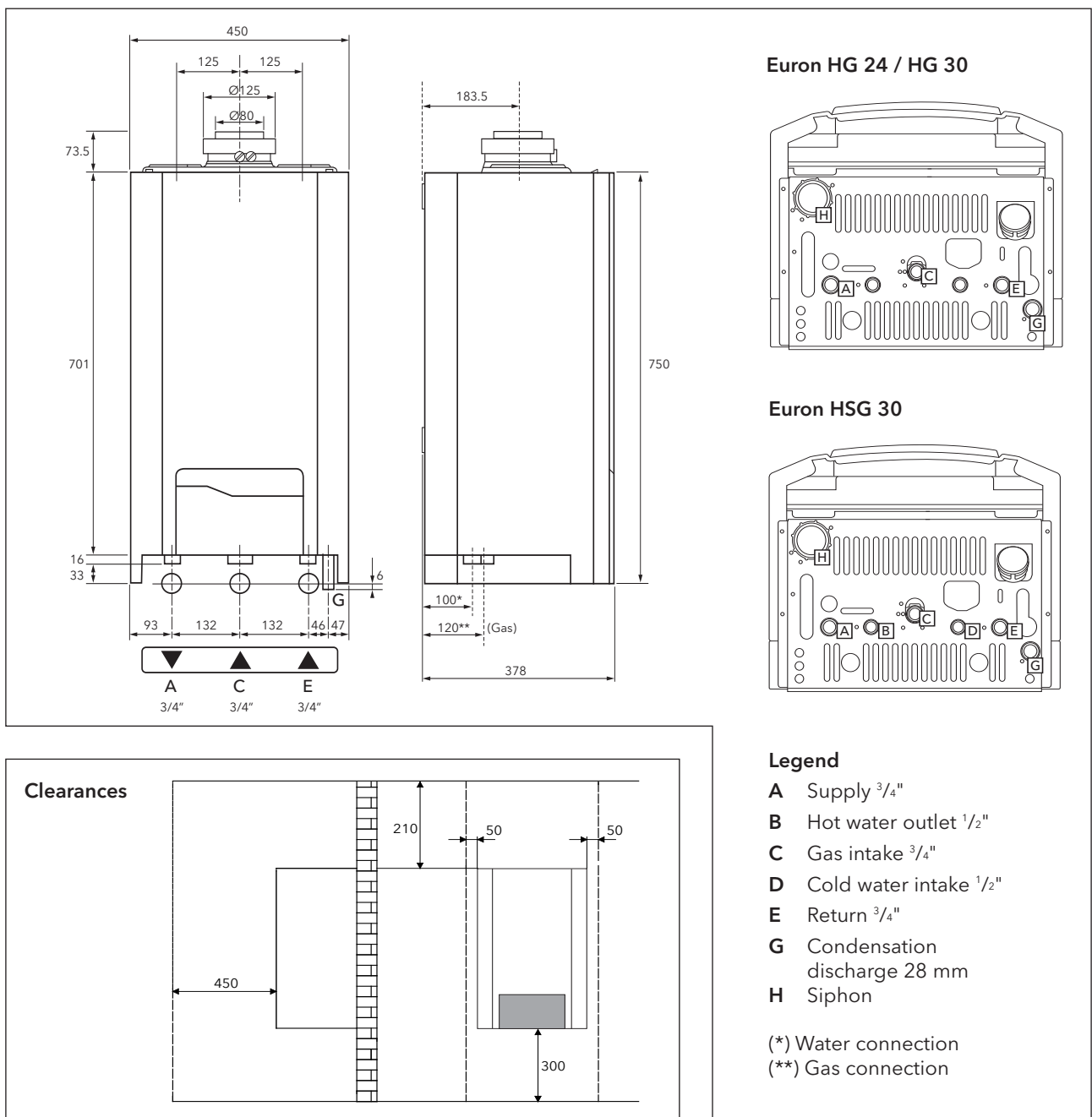
Boiler Model		HG 24	HG 30	HSG 30
Nominal Heat Output 80/60°C	kW	5.8 - 22.8	6.9 - 28.1	6.9 - 28.1
Nominal Heat Output 50/30°C	kW	6.1 - 23.6	7.2 - 29.2	7.2 - 29.2
Nominal Max Heat Output to Water (Combi Boiler)	kW	-	-	29.2
Nominal Heat Input Net	kW	6.0 - 23.0	7.1 - 28.5	7.1 - 28.5
Max Temperature Heating / Hot Water	°C	82/ -	82/ -	82/60
Efficiency @ Full Load Net/Gross	%	98.4/88.64	97.8/88.10	97.8/88.10
Efficiency @ 30% of Full Load Net/Gross	%	107.8/97.11	107.4/96.75	107.4/96.75
HW Delivery Δt 35K	l/m	-	-	11.91
Max/Min Operating Pressure (Heating)	bar	3.0/1.0	3.0/1.0	3.0/1.0
Max/Min Cold Feed Water Pressure (Combi Boiler)	bar	-	-	6.0/0.8
Gas Consumption Nat Gas G20	m³/h	2.43	3.01	3.01
Gas Consumption LPG G31	m³/h	0.87	1.08	1.08
Gas Inlet Pressure Max/Min Nat Gas G20	mbar	20.0 - 17.4	20.0 - 17.4	20.0 - 17.4
Gas Inlet Pressure LPG G31	mbar	50	50	50
Approx Flue Gas Volume Nat Gas	m³/h	36.68	44.89	44.89
Max Flue Gas Temperature	°C	74	71	71
Max Flue System Resistance	Pa	110	90	90
Flow / Return Connections	mm	22	22	22
Hot / Cold Water Connections (Combi Boiler)	mm	-	-	15
Gas Connection	BSP M	3/4"	3/4"	3/4"
Flue Connection (Concentric)	mm	80/125	80/125	80/125
Condense Waste Connection (Flexible Tube Tail Ø)	mm	28	28	28
Water Content	l	1.8	2.5	2.5
Nominal Weight (Dry)	kg	35	37	37
Electrical Consumption (230V 50Hz) Max	W	129	129	129
Noise Emission	dB(A)	36-44	36-44	36-44

Flue Classification: B23; C13; C33; C43; C53; C83, **Gas Category:** II2H3B/P; II2E3P, **CE Number:** 0085BP0033

Residual Head of Pump



Dimensions



Typical Hydraulic Schemes

Scheme 1

Typical hydraulic scheme with a single boiler serving a heating circuit and stored hot water

Control components needed:
QAA 73 Room Unit & AGU 2.514
Clip-in Module (optional extras)

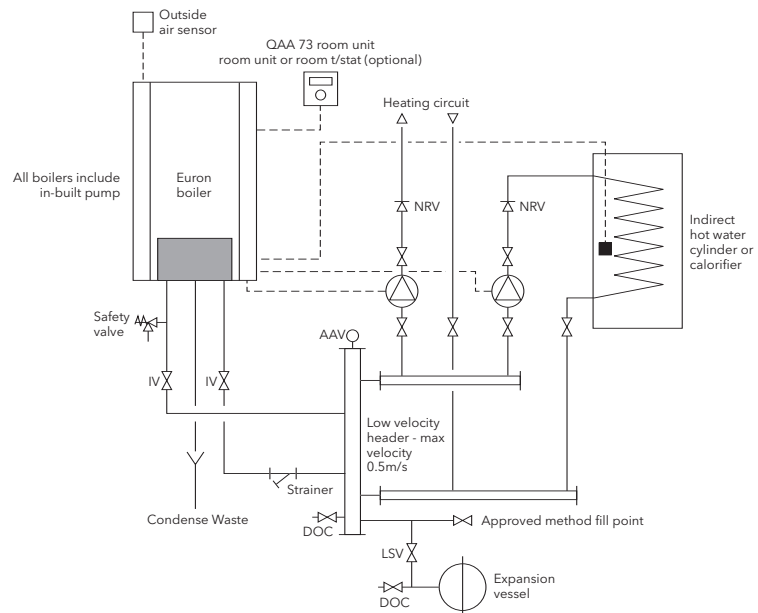


Fig. 1

Scheme 2

Typical hydraulic scheme with multiple boilers (up to 12) serving a heating circuit and stored hot water

Note:
For communication between the boilers and the RVA 47 Cascade Manager, each boiler must have a clip-in module 'OCI420' (optional extras).

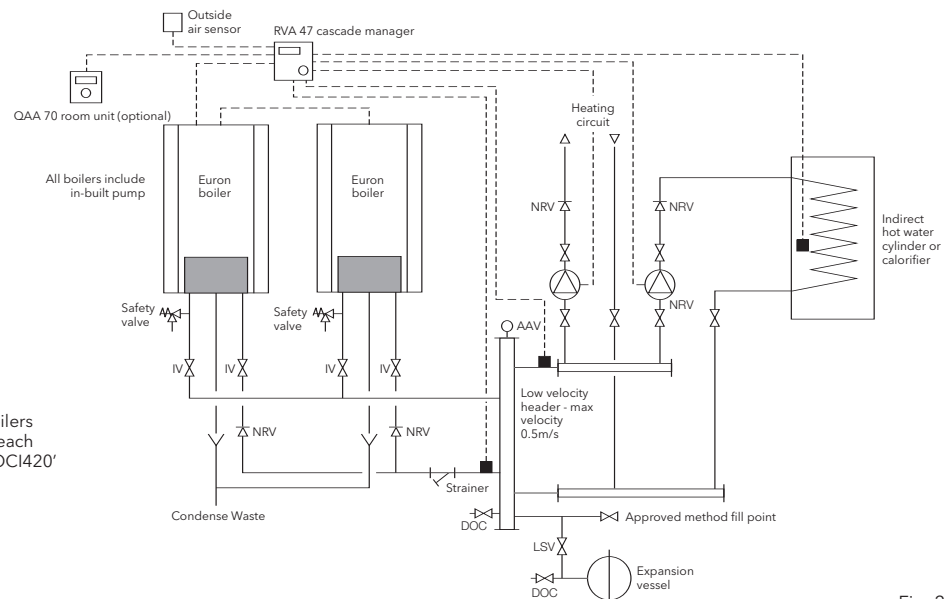


Fig. 2

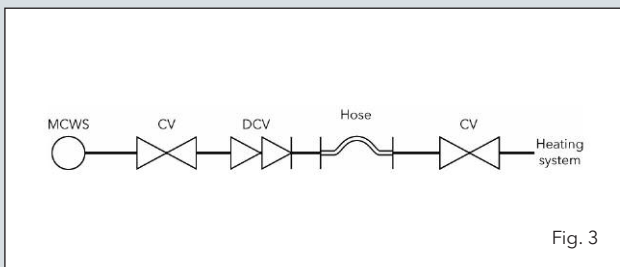
Filling the system

The initial filling of a sealed heating system, and subsequent refilling, must be by a method that has been approved by the Water Regulation Advisory Scheme (WRAS) for the type of heating system, i.e. Domestic (in-house) Fluid Category 3 (C-3). Non Domestic (other than in-house) Fluid Category 4 (C-4).

For Category 3 systems

The approved method of filling must comprise of the following components in the arrangement shown;

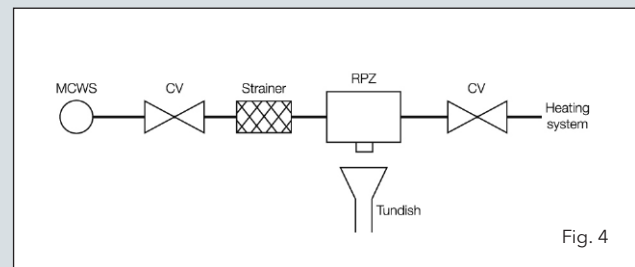
- Control Valve incorporating Double Check Valve on the Mains Cold Water Pipework.
- Temporary Connection Hose, which shall be disconnected after use.
- Control Valve, on the Heating System pipework.



For Category 4 systems

The approved method of filling must comprise of the following components in the arrangement shown;

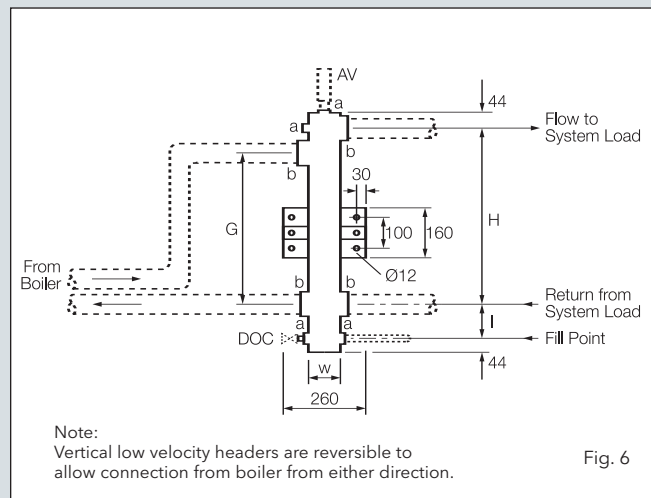
- Control Valve, on the Mains Cold Water pipework.
- Strainer.
- Verifiable Backflow Device with Reduced Pressure Zone (RPZ Valve) Incorporating a 'Type BA' air gap.
- Tundish.
- Control Valve, on the Heating System pipework.



Vertical low velocity header

As an aid to installation, a small range of prefabricated vertical low velocity headers are available. Prefabricated insulating jackets for the headers are also available.

Data		Type A	Type B	Type C
Tappings	a	1/2" BSP-F	1/2" BSP-F	1/2" BSP-F
Tappings	b	1 1/4" BSP-F	2" BSP-F	2" BSP-F
W	mm	50	60	100
Depth	mm	50	60	100
Distances from wall to £ Tappings	mm	260	260	260
G	mm	285	280	470
H	mm	345	350	540
I	mm	95	120	120
Duty @ 20k Δt	kW	Up to 90	91 to 155	156 to 300



Flue options

The Euron range has an excess pressure combustion system that allows the appliance to be flued over considerable distances using small diameter flue components.

The excess pressure available for the flue system is 110 Pa for the model 24, and 90 Pa for the model 30 boilers; this combined with a comprehensive range of flue components that are available provides possibilities that are many and varied.

Standard rear flue
80/125mmØ Concentric

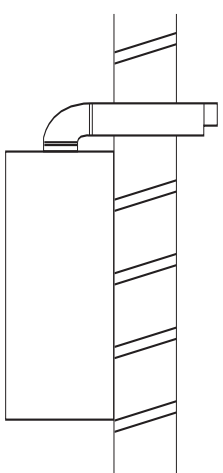


Fig. 7

Description	Part Number
80/125 Wall Terminal Kit	FLUESTR1-B-Wall

Side/extended horizontal flue
80/125mmØ Concentric

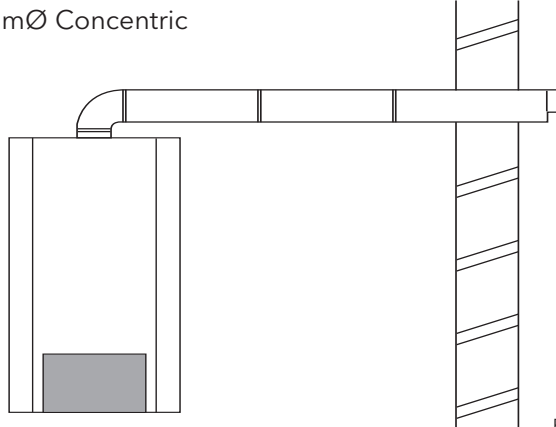


Fig. 8

Description	Part Number
80/125 Wall Terminal Kit	FLUESTR1-B-Wall
80/125 1000mm Straight Length	FLUEBEABAA600
80/125 500mm Straight Length	FLUEBEACAA600
125 Wall Bracket	FLUEBBBMAA600

Flue system

Calculating flue resistance

The adjacent table of flue component resistance will assist the system designer in calculating total flue system frictional loss. Providing that the proposed flue system is calculated as having a resistance of less than 110 Pa for the model 24 and 90 Pa for the model 30 boilers, then the system should perform satisfactorily with no effect on the output of the boiler.

Boiler Model Component Resistance	Euron HG24 Pa	Euron HG30 Pa	Euron HSG30 Pa
80/125 Concentric Wall Terminal	5	6	6
80/125 Concentric Roof Terminal	8	10	10
1m Length 80/125 Concentric Tube	3.75	4.5	4.5
93° 80/125 Concentric Bend	3.75	4.5	4.5
45° 80/125 Concentric Bend	1.75	2.5	2.5
1m Length DN80 PP Tube	1.5	2	2
93° DN80 PP Bend	1.5	2	2
45° DN80 PP Bend	1.25	1.5	1.5
DN80 Open Termination with Mesh	2	3	3
80/125 Concentric Wall Terminal with Vertical Discharge	8	9.5	9.5

Flue options (continued)

Vertical flue
80/125mmØ
Concentric

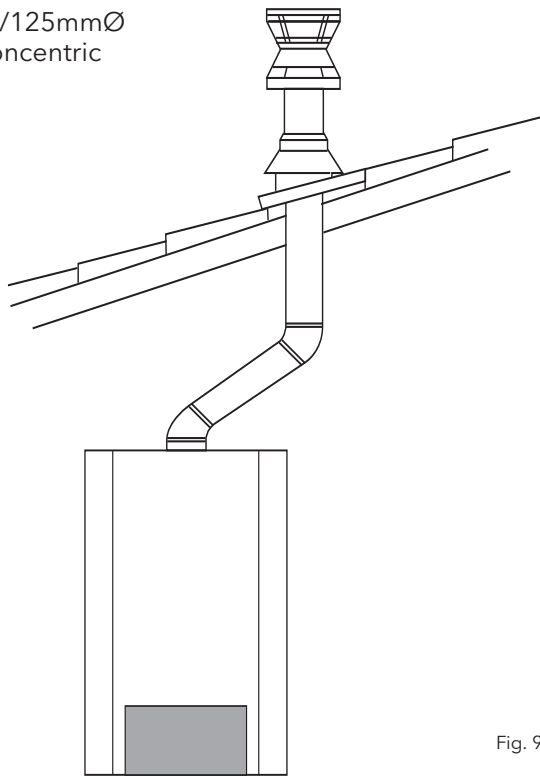


Fig. 9

Description	Part Number
80/125 Roof Terminal Kit	FLUEBDBXAA500
125mm Pitched Roof Flashing	FLUEBBCGAA500
125mm Flat Roof Flashing	FLUEBBTAA000
80/125 45° Elbow	FLUEBEAJAA600
80/125 1000mm Straight Length	FLUEBEABAA600
80/125 500mm Straight Length	FLUEBEACAA600
125 Support Bracket	FLUEBBMAA600

Non-room sealed horizontal flue
80mmØ PPS

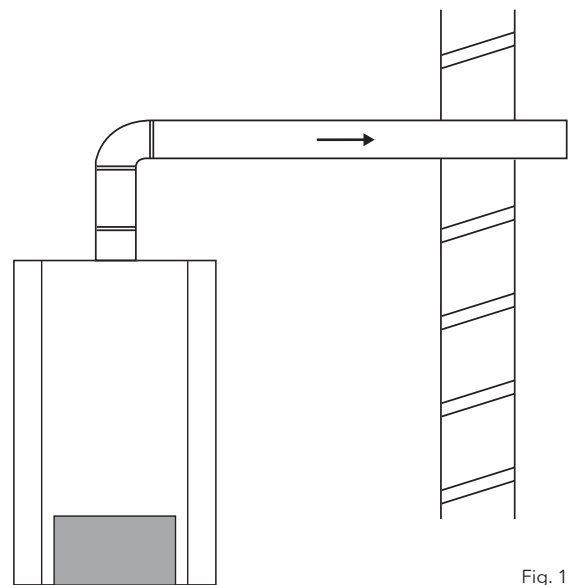


Fig. 10

Description	Part Number
90mm SS Bird Mesh	FLUE173091
80PPS 45° Elbow	FLUE113666
80PPS 93° Elbow	FLUE113665
80PPS 1000mm Straight Length	FLUE113662
80PPS Wall Bracket	FLUE113677

Further information on flue systems is detailed in the Installation & Maintenance Manual, available from our literature department.

Flue terminal positions

Terminal Position	Minimum Distance
A - Below an opening window etc.	300mm
B - Below gutter, soil pipes etc.	75mm
C - Below eaves.	200mm
D - Below balconies or car port roof.	200mm
E - From vertical drain or soil pipe etc.	150mm
F - From internal or external corners.	300mm
G - Above ground or balcony level.	300mm
H - From a surface facing the terminal.	2000mm
I - From a terminal facing the terminal.	2000mm

Terminal Position	Minimum Distance
J - From opening in a carport into dwelling.	1200mm
K - Vertically from a terminal, same wall.	1500mm
L - horizontally from a terminal, same wall.	300mm
M - Above an opening, window etc.	500mm
N - Horizontally to an opening, window etc	300mm
P - Above a level roof (base of terminal)	500mm
Q - From adjacent wall (edge of terminal)	500mm
R - From adjacent opening window	1000mm
S - From any other flue terminal	600mm

Dimensions highlighted in BOLD are not recommended locations

Minimum clearances

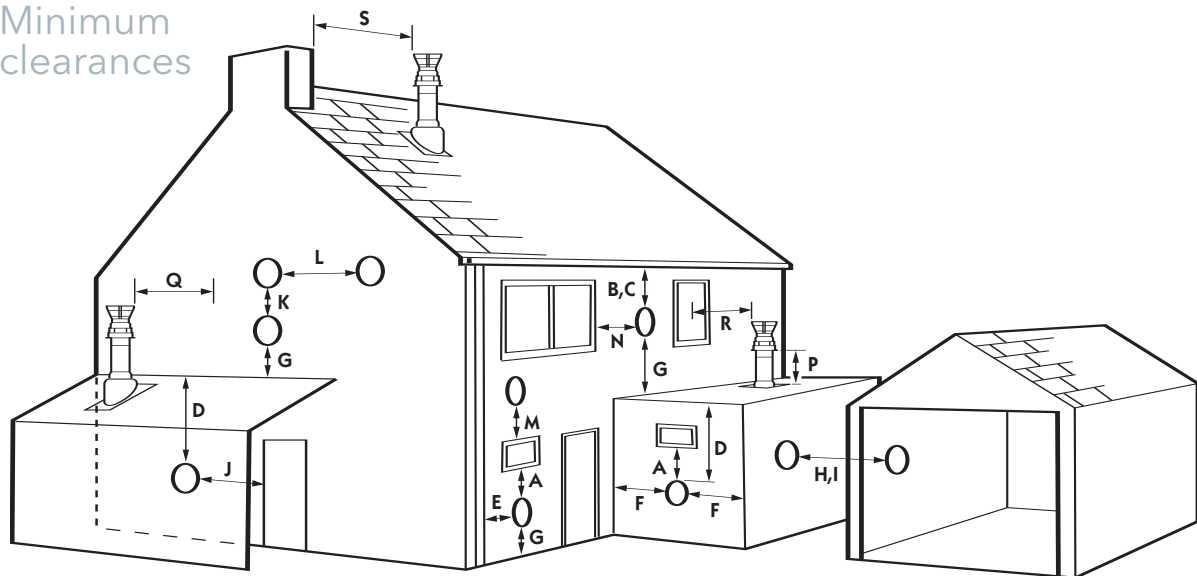


Fig. 11



MHS
BOILERS

3 Juniper West, Fenton Way, Southfields Business Park,
Basildon, Essex SS15 6SJ

Tel: 01268 546700 Fax: 01268 888250

www.mhsboilers.com



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