

## INSTALLATION OF HEATER

### Space Required for Installation and Service.

Left, Right or Above	300 mm	12 in.
In Front	800 mm	40 in.

### Suggested procedure:

Site to suit the pool, terminal, plume and condensate drain limitations. The Terminal position should follow BS 5440 and be at least 600mm away from any opening or obstacle.

1. **For an indoor installation only** : Mark & Drill Flue hole. (See Fig. 3.1 and 3.2 for dimensions)
2. Fix the Heater to the floor using the holes provided in the front channel.
3. The Heater is provided with an Electrical Plug and lead. This can be connected to a suitable supply as detailed on Page 5. If it is required to separately time the running of the Heater this can be achieved as follows:
  - Remove Front Top Panel after releasing the retaining M5 screw under the lip.
  - Remove the Electrical Cover to access the Mains connector.
  - Pull out the Mains connector and replace the Mains lead and link wire with a Permanent and Switched live supply.

**See Fig 11.0**
4. Pipe to the 22mm gas connection. A gas isolating valve is provided on the Heater Gas Valve.
5. Plumb to the Pool Pump and Filter.
6. Fill Primary system with water using the supplied hose connector. The Heater is supplied with one litre of Sentinel X500 Inhibitor/ Anti-Freeze in the pipework.
7. **IMPORTANT.** Remove the air from the primary through the Air Vent on the righthand Side Panel and the Vent on the top of the Primary Heat Exchanger. (See Fig 8.0) by running the internal pump in short one second bursts, venting, then pumping, until it has all been removed. There is special button (See Fig. 8.1) for operating the pump on its own, under the chassis on the pressure gauge side. To operate the Mains must be connected and on.
8. Test for leaks.
9. Replace the Electrical Cover and Panels.

### Assembly of the Outdoor Terminal

A specific Outdoor Top Terminal must be used for an outdoor installation. There must be at least 600mm clearance around the terminal and complete clearance above.

The Outdoor Top Terminal is a push fit into the Flue Adapter and locked in position with a clamping ring. (See Fig. 3.0 & 3.3)

If lubrication is required only Centra Cerin or silicone grease should be used.



### All Other Flue Systems Fig. 3.0

The maximum Flue Equivalent Length (FEL) permitted is 20 metres, horizontal or vertical. The component parts have the following FELs:

1 metre of concentric flue	1.0
2 metres of concentric flue	2.0
A 45 degree concentric bend	1.1
A 90 degree concentric bend	1.5
A concentric Roof Terminal	3.3
A concentric Wall Terminal	3.9

Sum the Flue Equivalent Lengths used in the design this must not exceed 20 metres.

### Assembly

All items assemble by a push fit/clamp system. If it is required to lubricate the seals only Centra Cerin supplied by the manufacturer or Silicone Grease should be used.

The pipes should be assembled so the socket end is always furthest from the Heater.

Flues should be supported by brackets every metre of run.

Horizontal flues should incline back to the Heater by 3 degrees (5mm in 100mm)

### Wall Terminal

The Horizontal Wall Terminal is supplied with two rubber wallplates, one for inside and one for the outside. The core drill diameter required is 175mm and should incline upwards to the outside.

Because of the incline of the flue the height of the centre of the flue hole on the inside will be determined by the distance the heater is from the wall. the following is the suggested procedure.

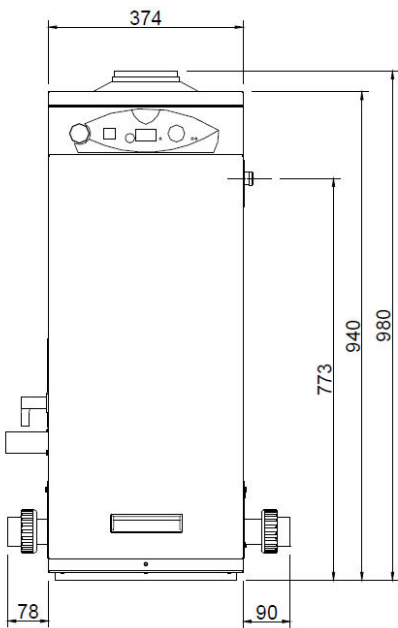
# Heater Dimensions

## Pipe Connections & Locations

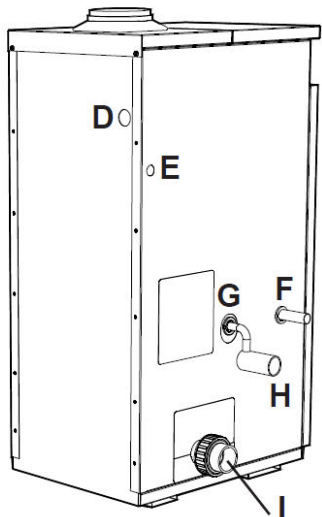
Fig. 3.1

Dimensions			
Model	A	B	C
Genie 35	138mm	229mm	361mm
Genie 50	170mm	261mm	425mm

Connections	
D	Multi Heater Connection
E	Electric & External Control (CCP01)
F	Gas Supply - 22mm Copper
G	Safety Valve Outlet - 15mm Copper
H	Condensate Drain - 1¼" or 40mm Hunter Plastic
I	From Pool - 1½" / 50 mm Plastic Demountable Fittings



Service Access	
Left, Right or Above	300mm
In Front	800mm



## Horizontal Wall Terminal Dimensions

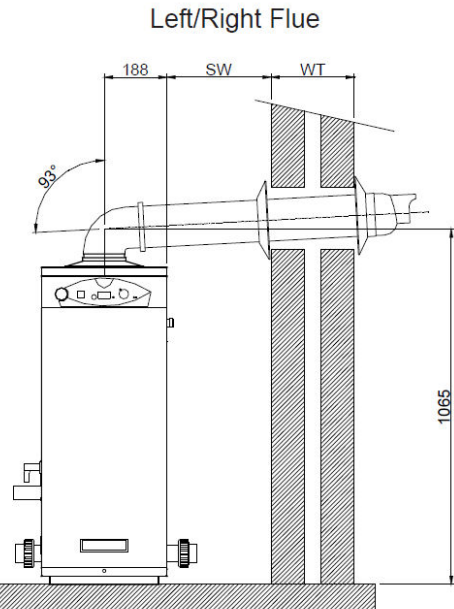
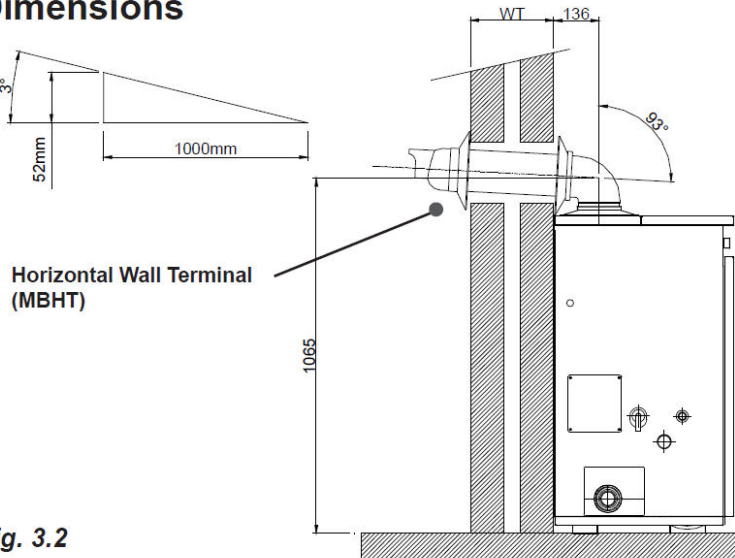


Fig. 3.2



## Outdoor Terminal Dimensions

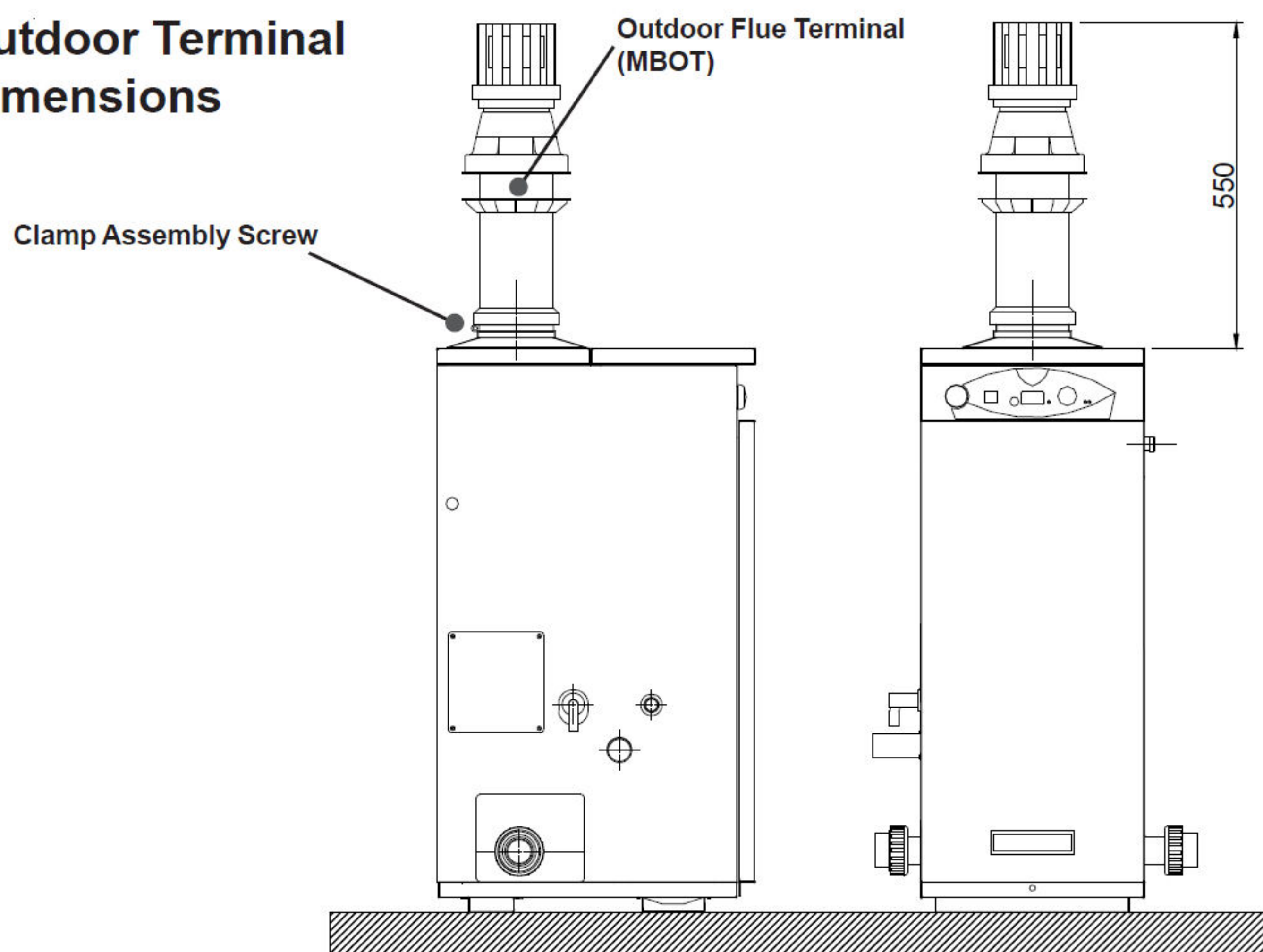


Fig. 3.3

## Vertical Roof Terminal Dimensions

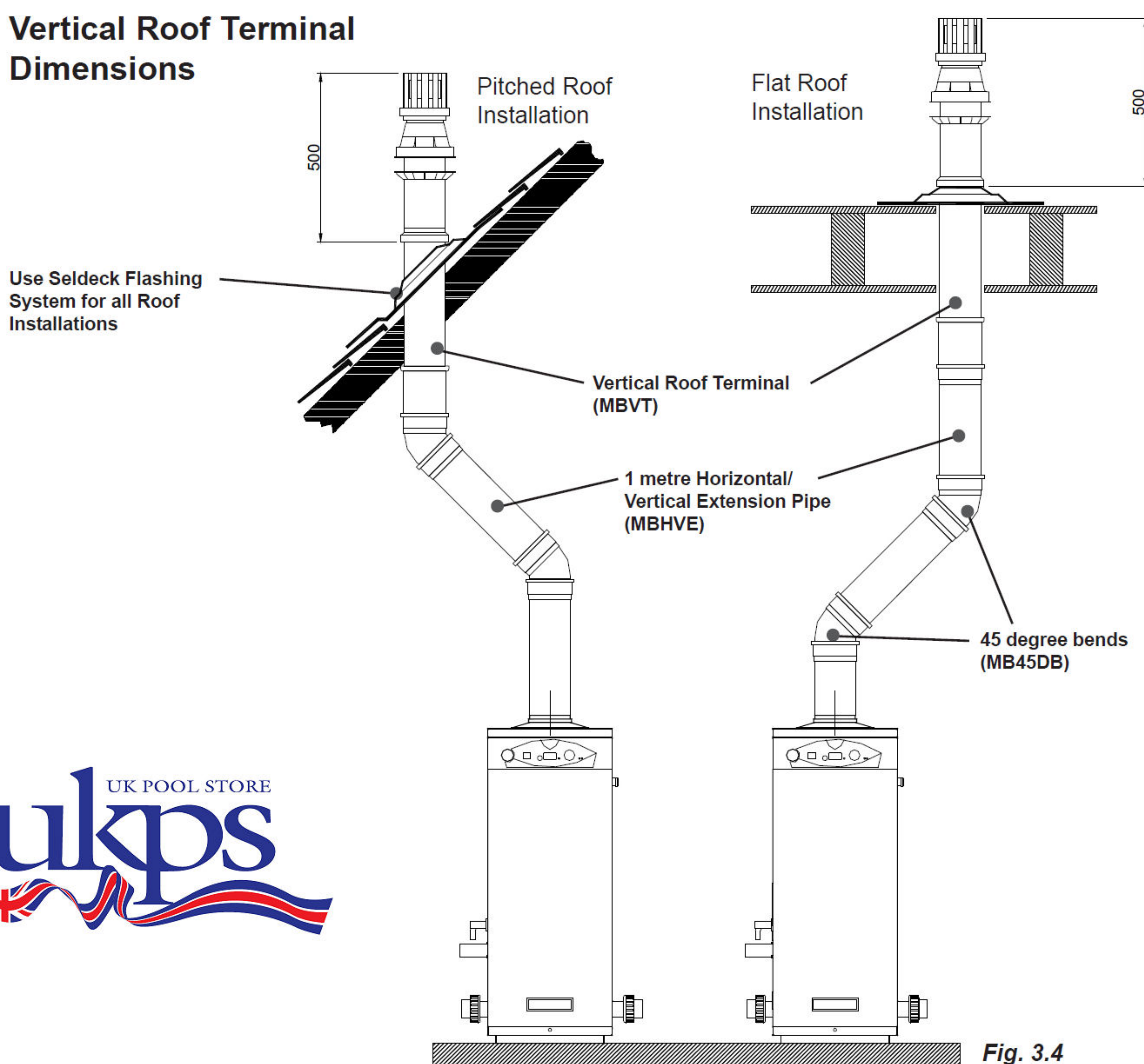


Fig. 3.4



# Flue Examples

## Outdoor Terminal



## Horizontal Wall Terminal



## Extended Horizontal Wall Terminal



## Extended Vertical Roof Terminal



# Flue Kit Part Codes

Determine the type of Flue system you require and choose from the list of kits available below:

		Type of Flue System		
Kit Code	Description	Outdoor Kit	Horizontal Terminal	Vertical Terminal
MBHT	Horizontal Wall Terminal	n/a	Yes	n/a
MBHVE	1 metre Horizontal/Vertical Extension Pipe	n/a	Option	Option
MBVT	Vertical Roof Terminal	n/a	n/a	Yes
MBOT	Outdoor Terminal	Yes	n/a	n/a
MB45DB	45 degree bend	n/a	Option	Option
MB90DB	90 degree bend	n/a	Option	n/a



## Flue Kit Part Codes (cont.)

The Maximum Flue Equivalent Length (FEL) permitted is 20 metres, horizontal or vertical. The Flue Kits available below list the FEL for each component. Add up all the FEL's used in your design and check that this does not exceed 20 metres. (see page 6)

Kit Code	Description	FEL Flue Equivalent Length (m)	Photo of Kit
<b>MBHT</b>	Horizontal Wall Terminal	3.9m	
<b>MBHVE</b>	1 metre Horiz./Vertical Extension Pipe	1.0m	
<b>MBVT</b>	Vertical Roof Terminal	3.3m	
<b>MBOT</b>	Outdoor Terminal	n/a	
<b>MB45DB</b>	45 degree bends (pair)	1.1m (per bend)	
<b>MB90DB</b>	90 degree bend	1.5m	



1. Ensure the required service clearance is available.
2. Fit the 90 degree elbow to the heater and measure from its outlet face to the wall.
3. Add 5 mm for every 100 mm distance to 1065 mm.

Example:

Distance measured = 480 mm

$(5 \times 480) / 100 = 25 \text{ mm}$

Flue centre  $1065 + 25 = 1090 \text{ mm}$

If it is required to reduce the length of the Terminal the minimum overall length is 300mm. The Flue duct should be cut 10mm longer than the Air duct.

## Roof Terminal

The Vertical Roof Terminal should be fitted in a minimum of 300mm clear unobstructed space. It is not permitted to alter the construction of the Terminal, above the roof line, however the concentric section below the roof line can be altered to suit the installation.

### It is recommended that:

1. The Installation of the flues are completed before their connection to the Heater. This will ensure that any debris that gets into the flues can be cleared.
2. That bends in vertical flues are 45 degrees.
3. Flues may be reduced in length by cutting. The inner Flue pipe should be cut so it is 5 to 10mm longer than the outer Air duct. It will ease assembly if the cut edges are cleaned, chamfered and greased before assembly.

## Terminal Guard

The flue products from this appliance are very low temperature so a guard is only required if the terminal is in a position where it may be damaged. A suitable guard is available from:

TFC Ltd. 01732 351555, Model DK6

