

# Keston

BY IDEAL HEATING

## HIGH RISE FLUE KIT

**KESTON COMBI**  
**KESTON SYSTEM**  
**KESTON COMBI<sup>2</sup>**  
**KESTON SYSTEM<sup>2</sup>**

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Keston.

For the very latest copy of literature for specification and maintenance practices visit our website [keston.co.uk](http://keston.co.uk) where you can download the relevant information in PDF format.





**WEEE DIRECTIVE 2012/19/EU**  
**Waste Electrical and Electronic Equipment Directive**

- At the end of the product life, dispose of the packaging and product in a corresponding recycle centre.
- Do not dispose of the unit with the usual domestic refuse.
- Do not burn the product.
- Remove the batteries.
- Dispose of the batteries according to the local statutory requirements and not with the usual domestic refuse.



The code of practice for the installation,  
commissioning & servicing of central  
heating systems



# Section 1 - Introduction

This kit is suitable for the following boilers:

| BOILER SIZE                    | G.C. Appliance No<br>(Benchmark No.) |
|--------------------------------|--------------------------------------|
| Keston Combi C30               | 47-930-07                            |
| Keston Combi C35               | 47-930-08                            |
| Keston System S30              | 47-930-45                            |
| Keston Combi <sup>2</sup> C30  | 47-930-09                            |
| Keston Combi <sup>2</sup> C35  | 47-930-10                            |
| Keston System <sup>2</sup> S30 | 47-930-54                            |

Destination Country: GB & IE

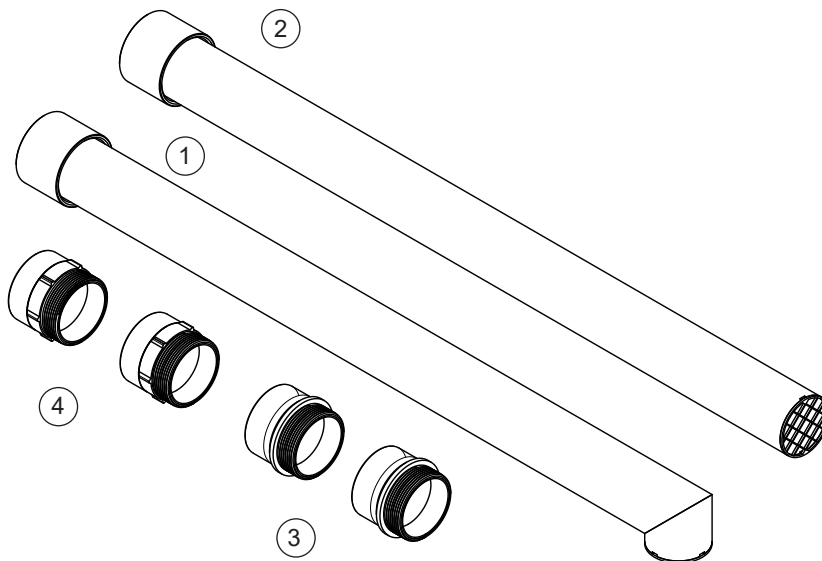
## 1.1 INTRODUCTION

This kit is required for installations in England and Wales above 18 meters. This is to adhere to the new building regulations. (The Building Regulations 2020, Part B - Fire Safety, Volume 1: Drawings, 2019 edition incorporating 2020 amendments).

This kit is also required for installations in Scotland above 11 meters. This is to adhere to the new building standards technical handbook 2020: domestic buildings (April 2021 Addendum).

## 1.2 KIT CONTENTS

1. Air Inlet Pipe x1
2. Flue Outlet Pipe x1
3. 2 in x 50 mm Adaptor (Polypipe) x2
4. 2 in x 50 mm Adaptor (Marley) x2
5. Thread Sealant x1 (not shown)



## 1.3 FLUE SYSTEM

**! IMPORTANT:** When installing a replacement boiler a new flue system is recommended. However, re-using the existing boiler flue installation is acceptable if the installer checks and confirms:

- The flue pipe is the approved Marley/Polypipe/Terrain 50 mm muPVC solvent weld flue system
- The flue system installation is upgraded to the most recent flue standards taking particular care to comply with flues in voids
- A risk assessment is conducted to confirm the effectiveness of the flue
- The existing flue will last the lifetime of the new appliance

### DESIGN

Individual air supply and flue outlet pipes are used as standard. The materials approved for this application which MUST be used are:

- Marley muPVC Solvent Weld System (50 mm)
- Polypipe System 2000 muPVC Solvent Weld System (50 mm)
- Polypipe Terrain 200 muPVC Solvent Weld System (50 mm)

BS5255 and/or BSEN1566-11 and BSEN1329, are the only systems approved for this application.

### SLOPE

'Horizontal' flue outlet pipework MUST slope at least 1.5 degrees (26 mm per metre run) downwards towards the boiler. Pipework can be vertical. Only swept elbows can be used.

Air inlet pipework can be truly horizontal or vertical, or sloping in a downward direction towards the boiler but in each case rain, etc, must be prevented from entering the pipe. There must be no troughs in any of the pipework, whether it be air inlet or flue outlet.

**! IMPORTANT:** Connections between the MuPVC systems and the High Rise Flue Kit must only use the approved parts from this kit.

Transitions between materials MUST be only inside the building.

| Polypipe System 2000 muPVC Solvent Weld System (50 mm) |                                       |
|--|---------------------------------------|
| Polypipe Code  |                                       |
| MU 301   | 4 m length muPVC waste pipe 5/225     |
| MU 313   | 50 mm x 45 deg muPVC obtuse bend      |
| MU 314   | 50 mm x 92.5 deg muPVC swept bend     |
| MU 310   | 50 mm muPVC straight coupling         |
| MU 316   | 50 mm x 92.5 deg muPVC swept tee      |
| MU 322   | 50 mm x 2 in muPVC socket x male iron |

| Marley muPVC Solvent Weld System (50 mm) |                                       |
|--|---------------------------------------|
| Marley Code                              |                                       |
| KP 304                                   | 50 mm x 4 m double spigot pipe        |
| KP32                                     | 50 mm x 45 deg bend                   |
| KSC3                                     | 50 mm straight coupling               |
| KB3                                      | 50 mm x 88.5 deg bend                 |
| KT3                                      | 50 mm swept tee                       |
| KMA3                                     | 50 mm x 2 in muPVC socket x male iron |

| Polypipe Terrain Solvent Weld System (50 mm) |                                       |
|--|---------------------------------------|
| Polypipe Code                                |                                       |
| 200.2.40                                     | 4 m length muPVC waste pipe           |
| 201.2.135                                    | 50 mm x 135 deg muPVC bend            |
| 200.2.91                                     | 50 mm x 91 ¼ deg muPVC swept bend     |
| 210.2  | 50 mm muPVC straight coupling         |
| 204.2.135                                    | 50 mm muPVC swept tee                 |
| 213.2  | 50 mm x 2 in muPVC socket x male iron |

**Note:** Consideration MUST be given to expansion and contraction of the flue. Refer to Assembly Practice installation and the servicing Instructions for guidance.

## 1.4 FLUE SYSTEM CLEARANCES

### TERMINATION OF THE FLUE AND AIR

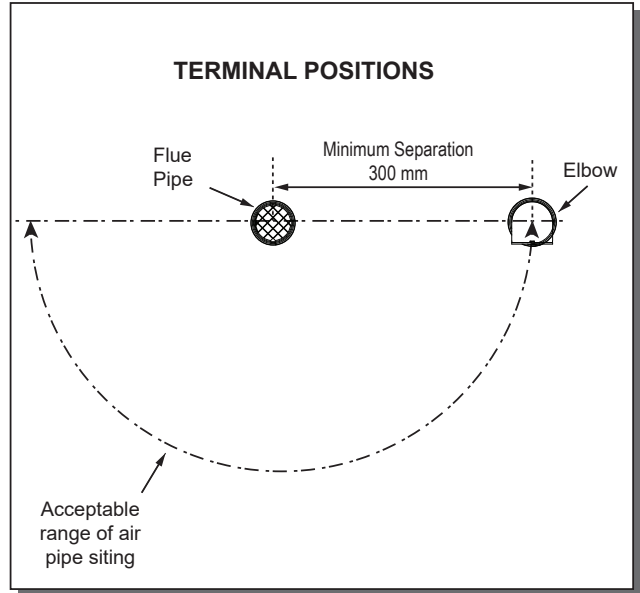
The flue and air pipes may terminate independently through any external walls within the same dwelling except on opposing walls, within the maximum lengths shown in graph below. (Alternatively a vertical flue pipe termination is acceptable.)

The air pipe must have its termination grill directed downwards.

The air pipe can be situated at the side or beneath the flue pipe to a minimum dimension of 300 mm (see diagram right). It must not be sited above the flue pipe.

The flue and air pipes must extend by at least 40 mm from the wall surface. For the air intake this must be a minimum of 40mm of straight pipe extending from the wall before the air intake turns downwards.

Condensing boilers emit a visible plume of water vapour from the flue terminal, this is normal. It is the responsibility of the installer to judiciously select a terminal location that does not cause a nuisance.

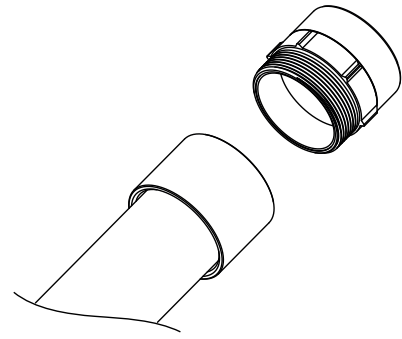


CLEARANCES FOR THE STAINLESS STEEL TERMINALS

### 2.1 ADAPTOR TO METAL PIPE

**⚠ WARNING: Thread sealant is a hazardous substance. Make sure that you know the safety precautions and first aid instructions for sealants. Use applicable personal protection equipment. May cause serious injury.**

1. Use thread sealant to bond the muPVC 2 in x 50 mm adaptor to the metal pipe at the threaded connection.



### 2.2 WALL PLATE SEAL TO PIPE

1. Lubricate the wall plate seal and apply pressure until the seal is on the flue pipe.
2. Repeat Step 1 for the air inlet pipe.

### 2.3 FLUE TERMINATION

1. Insert the completed assemblies through the wall externally.
2. Fit the Wall Seal to the interior side of the wall.

## 2.4 FLUE ASSEMBLY

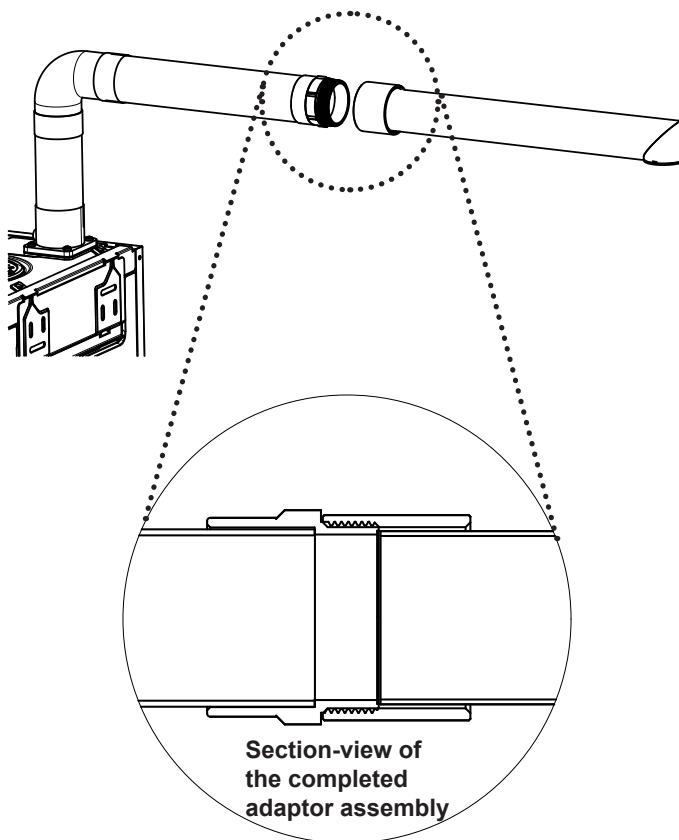
**⚠ WARNING:** Thread sealant is a hazardous substance. Make sure that you know the safety precautions and first aid instructions for sealants. Use applicable personal protection equipment. May cause serious injury.

**⚠ WARNING:** Make sure that gas or fumes cannot leak from the flue pipe connections. Gas and fumes can be hazardous to health.

**⚠ IMPORTANT:** Threads must not be visible on the adaptor, and both sections of the flue must be correctly attached with the appropriate fall back to the appliance.

1. Apply thread sealant to the threaded connections of the plastic adaptor, and the metal flue and air pipes.

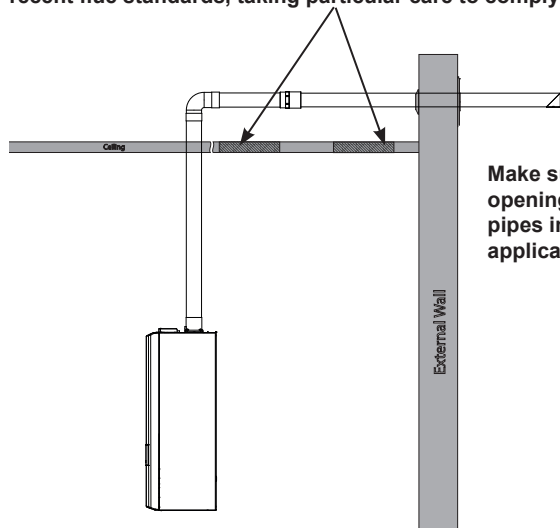
Make sure that gas or fumes cannot leak from the joint.



## 2.5 FLUE CONFIGURATION

**⚠ IMPORTANT:** Flue & air pipes should be adequately supported using brackets at 1m intervals.

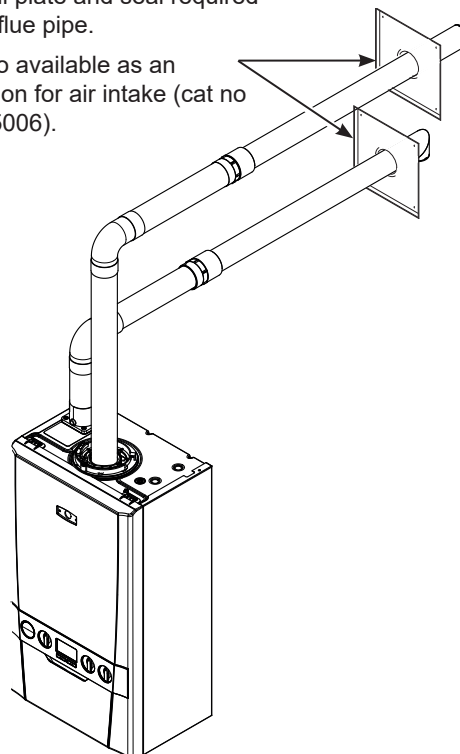
Inspection hatches should be installed to ensure compliance with the most recent flue standards, taking particular care to comply with flues in voids.



Make sure that you seal all openings for flue and air pipes in accordance with applicable regulations.

Wall plate and seal required for flue pipe.

Also available as an option for air intake (cat no 355006).





At Ideal Heating we take our environmental impact seriously, therefore when installing any Ideal Heating product please make sure to dispose of any previous appliance in an environmentally conscious manner. Households can contact their local authority to find out how. See <https://www.gov.uk/managing-your-waste-an-overview> for guidance on how to efficiently recycle your business waste.

#### Technical Training

Our Expert Academy offer a range of training options designed and delivered by our experts in heating. For details please visit: [expert-academy.co.uk](http://expert-academy.co.uk)

Ideal Boilers Ltd., pursues a policy of continuing improvement in the design and performance of its products. The right is therefore reserved to vary specification without notice.

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