

RICHMOND BRIDGE ESTATE - BOILER REPLACEMENT – THE ESTATE'S REQUIREMENTS.

The following technical guidance document must be followed by all residents at Richmond Bridge Estate when undertaking a boiler replacement within their property which requires the installation of a new flue. This outlines the freeholder's requirement to maintain consistency with the estate's aesthetics. It is the responsibility of each owner to ensure that the appointed boiler engineer complies with the following information when installing the flue system.

Installation Requirements.

There are generally two common flue installations present throughout the Richmond Bridge Estate.



Installation 1 – Balanced Flue System:

The existing installation currently incorporates a balanced flue system that shall be replaced with an identical flue arrangement during the replacement of the heating boiler.

The flue shall be connected to the heating boiler and discharge horizontally through the external wall complete with a flue terminal of an approved design to prevent birds nesting, reduce rain penetration, deflect wind and reduce staining due to downdraught. The installation of a condensing boiler shall create a plume of water vapour from the flue discharge terminal. The siting of balanced flue terminals shall be in accordance with BS 5440 part 1, which outlines the minimum distances where to site the flue terminal from openings and structural members. A waterproof seal shall be applied to the external diameter of the flue and the external wall to make a weatherproof seal around the installation. Ingress of moisture shall be prevented from affecting the internal wall face by using a drip ring to prevent rain bridging the cavity.



Installation 2 – Twin Flue System:

The existing installation currently incorporates a twin flue system that shall be replaced with an identical flue arrangement during the replacement of the heating boiler. The twin flue system is preferred in some residences due to a limited ceiling void in which to pass a balanced flue.

The air and flue ducts shall be installed as a continuous section through the external wall.

The installation of a condensing boiler shall create a plume of water vapour from the flue duct. The siting of a twin flue system shall be in accordance with BS 5440 part 1, which outlines the minimum distances for the flue duct position (minimum separation of 120mm).

The joint between the air and flue ducts and the external wall is waterproof.

The flue duct outlet shall be installed adjacent to the air duct; this arrangement shall minimize any wind effect on the heating boiler's performance.

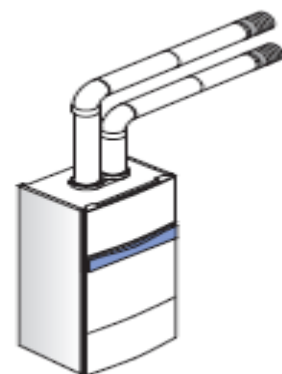
Replacement Heating Boiler Alternatives

■ Description	Balanced horizontal flue terminal, complete weatherproof seal.	Twin flue kit. For use with system boiler only.
■ Colour	Black	White

■ Image



(the white section shown in the picture is within the wall)



At the time of writing this report, all the boilers listed below use one or other of the flue terminal arrangements listed above.

Manufacturers:

BAXI Combination, Heat Only and System boilers

(SEDBUK rating: A).

Model References:

BAXI COMBI HE SERIES 24, 28, 33 and 40kW.

BAXI SOLO HE SERIES 12, 15, 18, 24 and 30kW.

BAXI MEGAFLO SYSTEM HE SERIES 15, 18, 24 and 32kW.

The BAXI SOLO HE series are available with balanced flue and the Baxi Megaflo System series is available with twin flue kits to be specified by installer when ordering.

Worcester Bosch, Combination and System Boilers

(SEDBUK rating: A).

Model References:

GREENSTAR COMBI SERIES 24i Junior, 28i Junior, 25si, 30si, 27CDi, 30CDi, 37 CDi, 42CDi, HIGHFLOW 550CDi and HIGHFLOR 440 CDi.

GREENSTAR SYSTEM SERIES 12CDi, 15CDi, 18CDi, 24CDi and 30CDi.

The Worcester Bosch Greenstar (Combi and System) series are only available with a balanced flue option only.

Ideal Boilers, Combination, System and Heat Only Boilers

(SEDBUK rating A)

Model References:

LOGIC+ (Combi) 24, 30 and 35kW.

LOGIC+ SYSTEM 15, 18, 24 and 30kW.

LOGIC+ HEAT 12, 15, 18, 24 and 30kW.

The Ideal Logic+ Combi, System and Heat only ranges are only available with a balanced flue option only.

Keston Boilers

(SEDBUK rating A)

Model References:

Condensing Boiler Range: 30C, C36, C45, C55, C90 and C110.

Qudos Boiler Range: Q28s, Q28H and Q 37H.

The Keston Condensing Boilers and Qudos ranges are only available with a twin flue option. The Contractor shall utilise a white PVC-C white flue pipe available from most builders and plumbing merchants (Certus Wavin product). Specification of pipework, fittings and jointing method shall be in accordance with Keston recommendations.

Please note, the requirement is to install a boiler that has a flue terminal that matches the ones pictured above. There may be other manufacturers from whom a boiler can be supplied that will operate from an identical flue cap. The Estate's only absolute requirements are listed below.

For balanced flue systems (Single flue)

1. That the external section of the flue is black in colour.
2. That the external flue diameter is no more than 100mm (up to 120mm may be permitted where the internal flue length dictates that a wider flue is required).
3. That the protrusion of the flue terminal from the external wall face is no longer than 110mm.
4. That the flue protrudes the wall in the same position as the existing flue

For twin flue systems

1. That the external section of the flue is white in colour.
2. That the external flue diameter is no more than 40mm.
3. That the protrusion of the flue terminal from the external wall face is no longer than 40mm.
4. That the flues protrude the wall in the same position as the existing flues

This guidance provided is **not intended as a design document**, but solely to provide information on behalf of the Estate to ensure that the boiler flue system conforms to the existing aesthetics of the building. CB Richard Ellis would also refer residents to the following:

- It is the responsibility of the resident to appoint a heating Engineer to select the boiler type and determine the output of the boiler in accordance with the heating and domestic hot water demands of their property.
- Prior to the purchase of any replacement boiler, the heating engineer shall verify the dimensions of the existing boiler compartment and check against the replacement model size and clearance requirements.
- The new flue(s) must be installed in the exact position as the existing flue(s). The Estate wishes to maintain not just uniformity in colour and size but also in location.
- The installation of a replacement flue system suitable for a condensing boiler may incur some additional builderswork on the external façade. This is to accommodate an incline in the flue back towards the boiler. It is the responsibility of the flat owner to ensure that the external facade of the building is made good to the satisfaction of the Estate.
- The installation of a replacement flue system suitable for a condensing boiler may incur some additional builderswork within the apartment to accommodate an incline in the flue back towards the boiler and to meet the recent requirement that the whole length of the flue can be inspected. Where the boiler is not located directly on the external wall of the apartment, it may be necessary to install inspection hatches. It is the responsibility of the flat owner to ensure that the external facade of the building is made good to the satisfaction of the Estate.
- The replacement of the heating boiler may require some local modifications to the existing plumbing and electrical services serving the installed boiler.

In accordance with Building Regulations, CB Richard Ellis would advise that the residents only appoint a heating Engineer qualified under the Competent Person's Self Certification Scheme.