

Keston
BY IDEAL HEATING

COMBI 2 WITH HIGH-RISE FLUE KIT

BREWERY WHARF APARTMENTS

CASE STUDY





BEFORE

*The uplift to Approved Document L Conservation of fuel and power and recent changes to the Building Regulations 2020, Part B – Fire Safety, Volume 1 mean important changes for heating engineers.



AFTER

KESTON COMBI 2 WITH HIGH-RISE FLUE KITS INSTALLED AT BREWERY WHARF APARTMENTS

Keston has supplied Combi 2 boilers and new High-Rise Flue Kits to a selection of residential apartments in the Brewery Wharf development in Leeds, as part of a recent refurbishment programme.

Situated on the south bank of the River Aire, Brewery Wharf is a sought-after development that offers a vibrant mix of offices, bars, restaurants, and a residential building development of approximately 327 apartments, which stands nine stories high.

THE CHALLENGE

Following recent building regulation changes*, amongst other conditions, including specific requirements regarding boiler flue placement and ventilation, it also means ensuring materials that become part of an external wall do not contribute to external fire spread. Here, using combustible flue kits is no longer an option for high rise buildings.

To evaluate the requirements of the building and to discuss how best to meet essential compliance, Keston arranged

a site visit with the building owner to discuss an upgrade to its existing PowerMax twin flue appliance. Following this consultation, the building owner also outlined the following requirements: to limit disruption and to maintain the building's aesthetics. It was decided that the apartments needed a modern heating system that could be easily integrated with minimum fuss. The design of the apartments dictated a long flue length that immediately ruled out the majority of boiler manufacturers. Keston, with its

twin flue system and high rise flue kits, was able to address this solution.

THE SOLUTION

Replacing a boiler can often involve relocating the appliance position, which means complying with specific requirements on placement of the flue and air intake on the exterior of the building, and ventilation for the internal boiler location in line with BS5440. These requirements ensure that waste gases do not compromise safety and are very clear on distances away from windows, doors and vents, other property features and neighbouring properties. However, to avoid the need to relocate the boiler to a different area, the Combi 2 twin flue boiler was specified with the Keston stainless-steel high-rise flue kit. This meant that the boiler did not have to be relocated and could remain in the same location within each of the selected properties, using the same flue route (but not the same flue pipe).

Offering greater flexibility through the Keston twin boiler system, Keston Combi 2 boilers

can be sited up to 27m** from the flue outlet, which is an important consideration for long or difficult flue runs and was a particularly important consideration on this project where the external flues could not negatively impact the aesthetics of the building.



Valuable savings were made due to not having to re-locate the boiler, and in some cases it is also possible to re-use existing flue holes, reducing additional work and unnecessary drilling.

This solution also addressed the issue of shallow flue voids within the building. The gradient on a new flue can often be difficult to achieve and conceal in shallow voids. However, with the Combi 2

fluing requiring a slope of only 26mm per metre run and diameter of only 50mm (as opposed to other fluing options having a diameter up to 125mm), this ensured the pipe remained within the shallow void, whilst helping to simplify installation.

NEW HIGH RISE FLUE KIT

To meet legislation the Combi 2 boilers were installed with the latest high rise flue kits from Keston.

Suitable for all buildings in England and Wales higher than 18m, the new Keston High Rise Flue Kit is fully compliant with the latest Part B Building Regulations, and installations in Scotland above 11m, in accordance with the Building Standards Technical Handbook 2020: Domestic Buildings.

Constructed of high-quality 316 stainless steel, the kit offers a corrosion-resistant alternative to other non-combustible or fire-resistant materials, such as aluminium, and is therefore compliant with the revised legislation covering materials allowed as part of the make-up of external walls.

“We turned to Keston based on its specialised twin flue capabilities and have particularly enjoyed working closely with them on the development of the Keston flue kits. We have always felt very well supported by Keston. The sales team has been a pleasure to work with.”

Robert Deegan, Brewery Wharf Management Ltd



Shallow flue voids & flue kit



**For the maximum total equivalent flue length please refer to the installation manual.