



Harbour House Musselburgh

Boiler room upgrade



Installation reference

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Client:

Morar Living (Part of Simply UK)

Specifier:

A Alexander & Son Ltd

Project Outline:

To provide heating and hot water for 43 bed ensuite Care home conversion.



Product Specified:

2x CoilMaster

2no CoilMaster 100 combined heating and hot water boilers delivering a combined continuous **3120 Litres per hour @ 60°C** and serving heating requirements to the full building.

- This project is a newly **renovated 44 bedroom** care Home which was stripped back to a bare shell and converted from a restaurant and leisure complex.

A Alexander & Son Ltd installed 2no AIC CoilMasters to serve the LTHW Heating & domestic hot water supply to the full building. LTHW is provided by way of LST Radiators to all areas and DHW to all en-suites, assisted bathrooms, Laundry & Kitchen.

Renovation and repurposing a building is often tricky, and can throw up unique and complex issues. The building was previously used as a restaurant, function rooms and health spa, with swimming pool that was filled in to create space for bedrooms for the new care home. The existing building had a mixture of boilers and calorifiers across two different plantrooms.

AIC CoilMaster boilers manufactured in **stainless steel** and come with a **10 year fire-tube heat exchanger warranty**, were selected due to their compact size and the dual function, which delivers heating and hot water from a single unit.



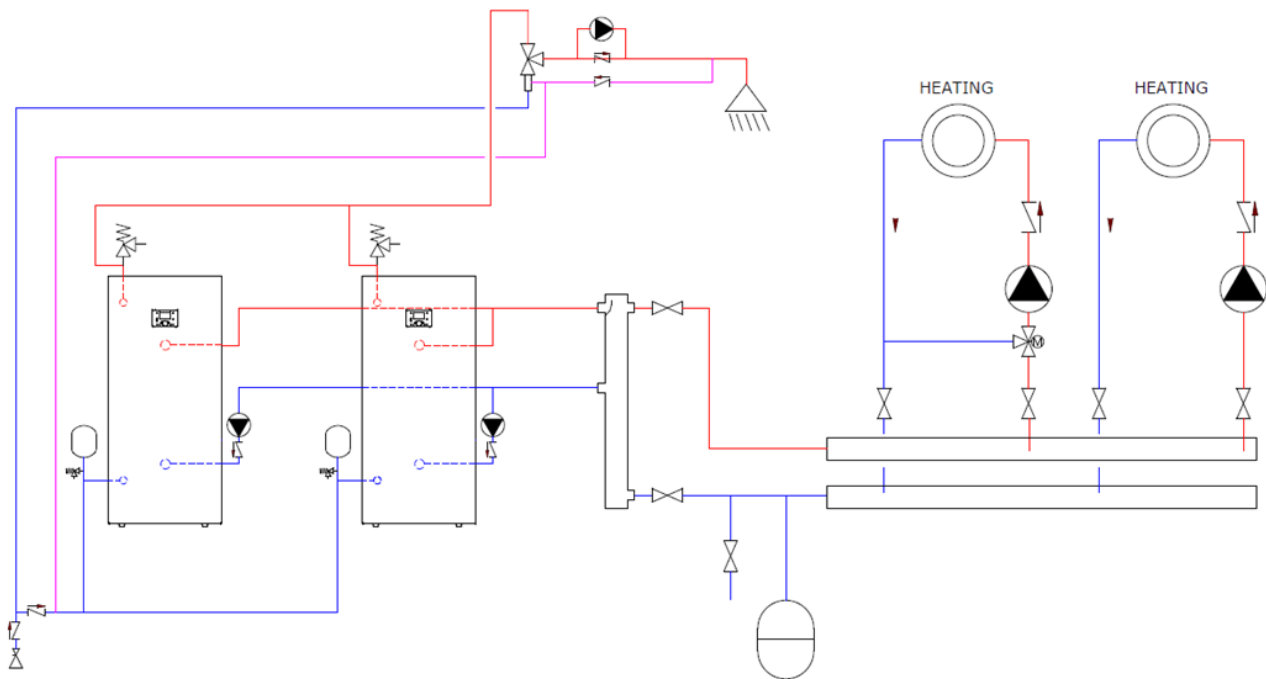
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- The CoilMaster boilers chosen for this installation are **NOx class 6** and twin condensing in both heating and hot water modes, giving high output of continuous hot water and heating from a **small footprint**. New flues had to be taken up through a vertical internal shaft and the roof was altered to accommodate these.

The CoilMaster boilers work on a hot water priority principle, so will generate heating until a hot water requirement is presented.

The CoilMaster will then switch to hot water mode until this is satisfied. Designed to **optimize efficiency and performance**, the CoilMaster has a stainless-steel coil that allows the instantaneous and continuous supply of hot water. Thanks to the **fast heat recovery** of the unit, the switching of the boiler will go undetected by the building users.

■ Bernard Diamond, Mechanical Director with A Alexander & Son Ltd said they were 'Very pleased with the AIC products, especially the CoilMasters. We have just completed 3 care homes (including this one) using the units and are onsite with two further care home projects totalling 288 beds. We have also just commissioned 2 units on another commercial entertainment venue. We plan to use these products on future projects which we have secured through 2021 & 2022.

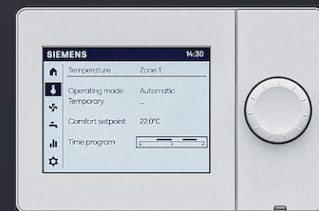
System schematic



CoilMaster combination boiler

This floor-standing CoilMaster combination boiler is a compact, **low-emission** condensing appliance with a pre-mix burner, a stainless-steel heat exchanger and a lightweight casing. It also includes a **built-in stainless-steel coil** that allows the instantaneous supply of hot water for domestic use.

The fully radial burner ensures a high modulation ratio, combustion stability and very low NOx emissions. The stainless-steel "fire-tube" heat exchanger offers a large heat exchange surface to optimize energy and heating efficiency. The boiler is equipped with a **Siemens LMS controller** with **LCD display** on the user interface which provides control of boiler operation and safety. The system can also provide control of up to 3 heating circuits and up to 16 boilers in cascade. Water heating efficiency Class A, with XXL load profile for water heating.



Specification		35	45	60	80	100	120
Heat Input	kW	34.9	45	57.5	80	99	115
Heat Output 80/60°C	kW	34	43.9	55.9	77.8	97.2	112.9
Heat Output 50/30°C	kW	37.6	48.4	61.6	85.9	106.9	124.2
Useful efficiency @30%	%	107.8	107.6	108	108	108	108
Seasonal Efficiency	%	92.0	92.0	92.0	92.0	93.0	93.0
Continuous DHW @ 40	L/hr	1068	1320	1632	2232	2850	3240
Continuous DHW @ 60	L/hr	600	750	978	1338	1560	1830
Footprint	m ²	0.39	0.39	0.49	0.49	0.56	0.56
Height	mm	1604	1604	1446	1446	1650	1650
Weight	kg	180	180	200	200	285	285