



Boiler plant decarbonisation for a Manchester crematorium.

Appointed to fully decarbonise the heating and hot water plant at Blackley Crematorium, we removed the site's existing gas-fired boilers and installed a three-pump air source heat pump system — with a plate heat exchanger recovering waste heat from the cremator itself. The result: a modern, low-carbon plant room supporting the site's ongoing sustainability targets, delivered and commissioned within a live operational environment.

SECTOR	ROLE	PROJECT TYPE	OUTCOME
Public Sector	Mechanical Subcontractor	Plant Decarbonisation	Delivered & Commissioned

01 — SCOPE OF WORKS

Strip-out, install & commission.

PROJECT BUDGET

Circa £230k

01 Existing plant strip-out Full removal of the site's existing gas-fired boiler plant	02 Air source heat pumps 3× Ideal 50kW heat pumps, installed and integrated
03 Buffer tank & pump sets Primary buffer tank with associated pump sets and controls	04 Pipework fabrication Full pipework install linking heat pumps, buffer and distribution
05 Cremator waste heat recovery Plate heat exchanger capturing waste heat from the cremator	06 Ancillary heat recovery Additional waste heat capture from plant room pumps
07 Hot water cylinder New immersion-feed hot water cylinder installation	08 Aluminium-clad lagging Full thermal lagging to all new pipework, internal and external
09 Electric trace heating Trace heating installed to protect external pipework	10 Test & commissioning Full testing and commissioning of all works



02 — CHALLENGES

What we had to solve.

+ A live operational site

The crematorium had to remain operational throughout the works — planned outages and phased working were essential.

+ Novel waste heat integration

Capturing usable waste heat from the cremator required careful design and specification of the plate heat exchanger.

+ Multi-system coordination

Heat pumps, buffer, waste heat recovery, hot water and trace heating all had to run as one cohesive system.

+ Constrained plant space

The existing plant room dictated careful routing and fabrication to accommodate all the new equipment.

03 — SOLUTIONS

How we delivered.

→ Phased works planning

Careful sequencing of strip-out, install and commissioning kept the site operational throughout.

→ Custom heat recovery design

Bespoke plate heat exchanger arrangement to capture cremator waste heat and feed it back into the system.

→ Integrated system approach

Coordinated design across heat pumps, hot water, waste heat and trace heating for a single unified plant.

→ Precision fabrication

Off-site prefabrication and careful on-site routing to maximise the constrained plant room and keep access clear.

04 — RESULTS

Fossil fuel plant out, low-carbon heat in — commissioned and running.

01

Gas-fired boilers removed, cutting the site's reliance on fossil fuels

02

Three air source heat pumps providing sustainable low-carbon heat.

03

Waste heat from the cremator recovered and put back into the system.

04

Modern plant, fully tested and commissioned, ready for long-term service.

In short —

This project demonstrates our capability to deliver complex decarbonisation packages for public sector clients — combining heat pump technology, waste heat recovery and full system integration into a modern, low-carbon plant room.

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