



A complete boiler room replacement, built for efficiency and longevity.

Mellor & Mottram Mechanical Services were appointed to design and deliver a full boiler room replacement — stripping out the existing plant and installing a modern, high-efficiency heating system engineered for reliable performance, lower running costs, and long-term operational savings.

SECTOR	ROLE	PROJECT TYPE	OUTCOME
Education	Mechanical Subcontractor	Boiler Room Overhaul	On Programme + On Budget

01 — SCOPE OF WORKS	PROJECT BUDGET
Design, supply, install & commission.	Circa 220k

01 High-efficiency condensing boilers New Remeha boilers selected for proven efficiency and reduced fuel consumption	02 Primary pump sets Circulation pumps for improved flow control & system balance
03 Plate heat exchanger Hydraulic separation between primary & secondary heating circuits	04 Mechanical pipework Welded and screwed steel pipework throughout the plant room
05 Trend Controls BMS Full controls package for monitoring, scheduling and fault reporting	06 Existing plant strip-out Safe removal and disposal of redundant boilers and ancillaries
07 System flushing & dosing Chemical clean and treatment to protect new plant	08 Insulation & finishing Pipework insulation and plant room finishing to specification
09 Testing & commissioning Full pressure testing, commissioning and handover	10 Operation & maintenance O&M documentation and client training on new BMS interface

02 — CHALLENGES

What we had to solve.

+ **Continuity of heating**

The building could not be left without heat or hot water — strip-out and changeover had to be planned around occupied periods.

+ **Working in a confined plant room**

Limited access and tight service routes meant every component had to be sequenced in and positioned with care.

+ **Legacy system integration**

New high-efficiency plant had to tie cleanly into existing distribution pipework, emitters and electrical supplies.

+ **Modern controls on an older building**

Bringing a Trend BMS into a site that previously relied on manual control required careful commissioning and user training.

03 — SOLUTIONS

How we delivered.

→ **Phased strip-out & changeover**

Works planned around the client's operating schedule to maintain heating availability throughout the project

→ **Considered layout & access**

Plant arranged for clear service access, future maintenance and a tidy, engineered finish.

→ **Remeha condensing boilers + pump sets**

High-efficiency plant paired with correctly sized pumps and a plate heat exchanger to maximise heat transfer and reduce energy waste.

→ **Trend Controls BMS**

Full remote monitoring, scheduling and alarming — giving the client visibility, control, and faster response when something needs attention.

— 04 — RESULTS

A modern, efficient plant room — built to lower running costs and last.

01

Significantly improved energy efficiency and reduced fuel consumption.

02

Lower operating and ongoing maintenance costs for the client.

03

Increased system reliability with modern, well-supported plant.

04

Smarter heating management through full BMS control and monitoring.

In short —

This project shows our capability to deliver complete plant replacements with minimal disruption. Through careful planning, quality installation and intelligent controls, we handed over a future-proofed heating system designed to perform reliably for years to come.