



GET IN TOUCH

Visit us in Rochdale to see our vertically integrated manufacturing facilities. We manufacture burners, control panels, boosters and package plant rooms on site.

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DUNPHY CONTROL PANELS

Boiler house information at your fingertips

Boiler control panels

Boiler control panels enable maximum control of operations within the boiler house. Operating a boiler house with this system ensures that boilers are fired in a controlled manner, providing cost savings through preventing individual boilers from over-firing and cycling on and off unnecessarily.

We have two systems, which offer varying degrees of control.

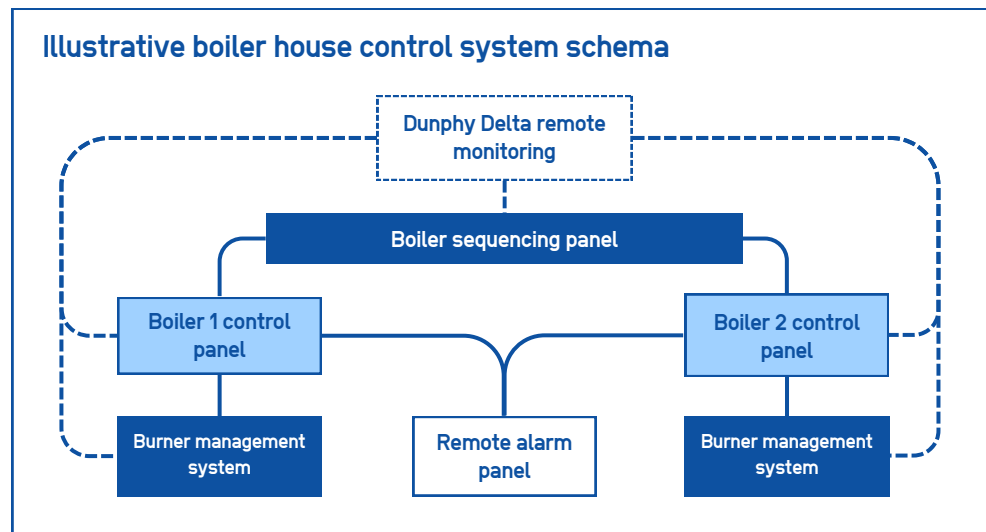
1 - System 4000:

Provides comprehensive detail and control over boiler performance without a touchscreen.

2 - System 5000:

Our most advanced solution with the highest level of control. Everything available digitally.

We also have a **boiler sequencing software**, providing control and monitoring over multiple boilers at once, and **Dunphy Delta** that provides remote monitoring of the boiler house.



How do you choose which system is right for your needs?

Each system offers a wide variety of features that ultimately enable safety and control over boiler house operations.

Functionality	System 4000	System 5000
Burner controls (on/off, fuel selection etc.)	✓	✓
Water level controls (fill, drain, test, etc)	✓	✓
Alarm indication	✓	✓
Metering	✓	✓
Remote monitoring (SCADA)	✓	✓
CHP control including engine purge cycle	✓	✓
Economiser control and monitoring	✓	✓
17" touchscreen	✗	✓
Historical data trending	✗	✓
Document management system	✗	✓
Reports	✗	✓
Efficiency calculations	✗	✓



System 5000

The System 5000 is highly customisable and has 10 key features that make it stand apart as the best in class boiler house management solution.

01 Unique configuration capabilities

The Dunphy System 5000 software is unique in its ability to be tailored to any given boiler configuration. Monitoring and control of steam, hot water and twin furnace boilers in addition to kiln fired applications is available as standard. Components such as water levels, hotwells and bypass dampers can be connected directly to the system.

02 Full document management

All of the documents in the boiler house can be added to the system to provide a centralised source for documentation. This allows for manuals, data sheets, drawings and service sheets to be stored and viewed at a later point.

03 Feed water pumps

You can easily select which feed water pump to use and display current status information including tripped indication and feed water pressure. Auto rotation of feed pumps is also available based on a user configurable schedule.

**Save up to 10%
over mechanical
linkage systems**

04 Waste heat and combination firing control

Detailed CHP and bypass damper information and control is available as standard. Damper positions, setpoint, running status and temperatures can all be configured.

05 BG01 compliant

The system can be integrated with a remote alarm panel for situations where an unmanned boiler house is desired. This enables all appropriate alarms to be indicated at a remote location with the facility to remotely shutdown the burner

06 Water level indication and control

Indication of boiler level alarms and the ability to display the actual water level as a percentage and the TDS level in ppm or $\mu\text{S}/\text{cm}$. Manual adjustment of the boiler water level is available through the use of non-latching fill and drain buttons. An evaporation test feature can be incorporated and water levels can be tested via the touch screen.



07 Burner control

- Switch the burner on / off
- Select manual modulation at a fixed firing rate or automatic control via PID
- Fuel selection with a single touch
- Set a maximum modulation rate
- Set a fixed or timed setpoint. The timer allows multiple setpoints to be configured and changed on the hour, 24/7.
- An advanced timer allows the setpoint to be changed on any schedule to a given minute and activate outputs to initiate further control actions, such as the open/ closing of valves
- Mute / reset faults and lockouts. An unlimited error history is also provided for fault diagnosis purposes.

08 Remote data access and control

The System 5000 is designed to allow remote access to all information brought back to the system. This enables a supervisory control and data acquisition (SCADA) system to be connected in order to monitor the current state of the system. In addition to this the connected system can be afforded control of features such as burner on / off, fuel changeover, setpoint, boiler feed water pump selection and more. Remote communication is included as standard via Modbus (TCP/IP, RTU or ASCII).

09 Dunphy Delta remote monitoring

The DunphyDelta remote monitoring system allows you to remotely monitor and control your boiler house from any location.

Use your laptop, tablet or phone to access live information of the health of connected equipment and receive emails or SMS indication of any faults as they happen. Connect multiple boilers and other suitable devices to one Delta system and feel safe in the knowledge that the data is held on cloud servers and data is encrypted on transmission. The System 5000 is fully compatible with the DunphyDelta system and enables a wealth of information to be accessed from any location, 24/7.

10 Boiler sequencing

The System 5000 is fully compatible with our boiler sequencing panel software. This enables a top level view of the boiler house whilst providing costs savings through increased fuel efficiencies by modulating only the burners that are required and at the optimal firing rate.



System 4000

The System 4000 provides a high level of monitoring and control over boiler house performance. The key difference compared to the System 5000 is the removal of the touchscreen and the features that come with that, however this solution still offers significant control and safety within the boiler house.



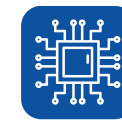
Bespoke designed panel, tailored to a customer's specific requirements



Floor standing and wall/boiler mounted options



Door interlocking mains isolator



Different control circuit voltage options (110Vac, 230Vac or 24Vdc)



Designed to EN 12953 and EN 60204



Boiler feedwater control (on/off or modulating)



Boiler TDS and Bottom Blowdown control



Starter motors for duty/standby boiler feed pumps



EN 50156 approved safety relays for boiler safety functions



Economiser spill-back control and temperature monitoring



Waste heat (CHP) damper control including engine purge cycle



Remote communication (Modbus, Profinet, etc) for interfacing with site control systems

Boiler sequencing

The Dunphy Boiler Sequencing software acts as a wrapper around boiler or burner control software, providing control and monitoring over multi-boiler boiler house operations.

It is unique in its ability to be tailored to any given boiler configuration. Monitoring and control of steam or hot water systems incorporating a mix of up to 10 single and twin furnace boilers is available as standard.



Simple, intuitive design



Password protected control of features such as lead boiler selection and setpoint control



Retransmit all data to a remote system for monitoring / control purposes



Auto rotation of lead boiler



Set a specific sequencing order for each lead boiler



Auto change setpoints based on the day/hour to provide efficient use of the steam/hot water



Record detailed historical data to suit your own requirements



Full document management suite capable of storing all manuals, service documents and operator test records

Dunphy Delta

The Dunphy Delta software allows you to remotely monitor and control any device within the boiler house and can be used in conjunction with any boiler control system.

Accessible via any web enabled device including desktop, laptop, iPad or mobile, you can see how your boiler house is performing from anywhere in the world.



Near instantaneous access to real time operational data



Send SMS and email notifications of any alarm conditions



Password protected access and encrypted connection



Record trending information



Display and record metering information



Easily scalable to allow multiple, geographically dispersed, plant rooms to be monitored from one system



Quick and easy to deploy requiring no onsite technical knowledge



Mimics the display of the System 5000 boiler control system to provide a simple, intuitive display of data