

Eurocondense two

Floor Standing Commercial Condensing Boilers
400 & 500kW



Working towards
a cleaner future

POTTERTON
COMMERCIAL
heating specialists

Eurocondense two

Potterton Commercial is synonymous with reliable heating technology and in the new range of Eurocondense two floor standing condensing boilers its reputation for engineering continues.

Using the very latest in heating technology with the ultra-reliable and proven heat-exchanger made from an aluminium/silicon alloy with an industry leading 10 Year Warranty*. A combustion system which delivers exceptional energy efficiency (up to 107% net) as well as advanced ultra low NO_x performance, exceeding Class 5, ensuring the boiler is extremely environmentally friendly. It was hard to see where improvements could be made.

After extensive market research with the customer, installer and specifier they all came back with the same answer that the user interface was paramount in their decision making process.

With this in mind it allowed Potterton Commercial to extend the boundaries of boiler/user interface and to develop in conjunction with a leading controls manufacturer Siemens the Integrated System Regulator (ISR) control system.

The user friendly control panel now offers full text display of operation status with inbuilt weather compensation, summer/winter changeover and time control facilities for heating and DHW. Together with the full text display, fault diagnostics no longer need to be numeric codes or illuminated lights which have to be translated as the fault status is now displayed in text.

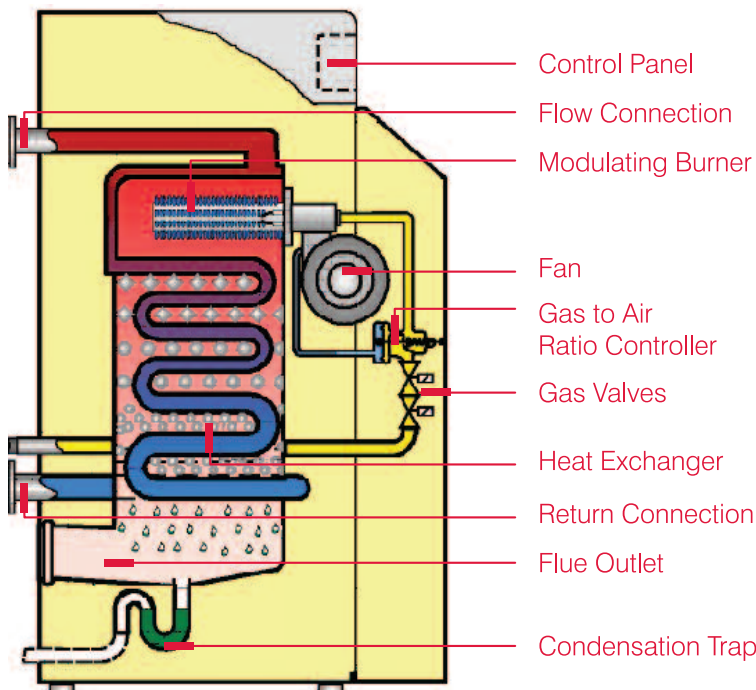
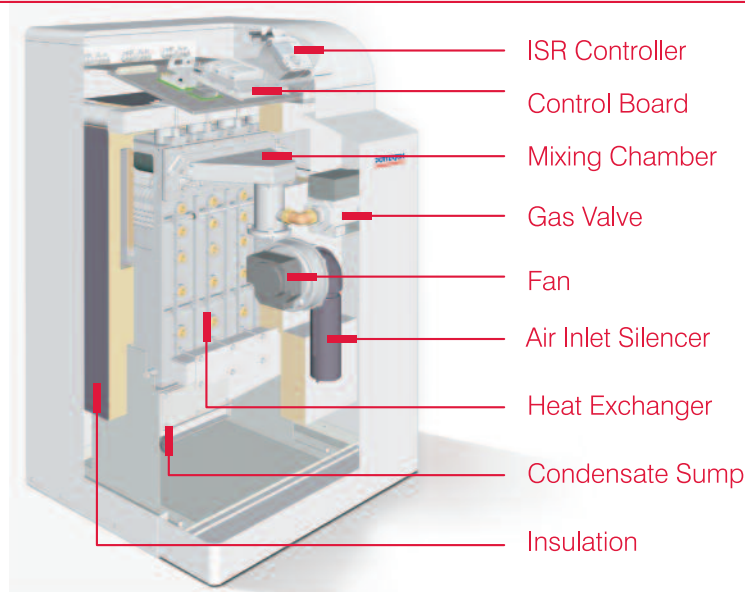
The ISR controls can be used with the simplest of room thermostats or fully integrated with Building Energy Management Systems. Remote status facilities are built in for run and fault and the ISR controller also allows for remote control of set-point temperatures using a 0-10V signal.

In addition to the standard controls offer which meets most specifier's needs, Potterton Commercial can offer optional controllers for DHW operation, optimisation, zone control and modular boiler sequence control.

*terms and conditions apply



Eurocondense two Design



Combustion circuit

- Gas at the correct rate is mixed with air from the inlet fan, this is mixed in the mixing chamber before ignition takes place on the burner bars.
- The heat in the flue gases travel downward and gradually cools as it travels down the heat exchanger as the latent heat is released.
- Condensate will start to form below dewpoint and also travel downwards.
- Condensate drains away through the trap and flue gases discharge into the flue system.
- Water flow is in the opposite direction travelling upwards.
- All connections for ease are made at the rear of the boiler.

Controls

The new Integrated System Regulator (ISR) control system incorporated on the Eurocondense two range of boilers has been designed with the emphasis on the ease of commissioning, programming and diagnostics and to embrace the requirements set out in the Building Regulations for minimum controls requirements for installations.

The Eurocondense two comes supplied as standard with the ISR user interface unit capable of time control of heating and DHW circuits (WWF tank sensor required). Weather compensation, frost protection and automatic summer/winter changeover facilities are also incorporated and through the use of the RGT room thermostat optimum start and stop is available. The Eurocondense two also incorporates volt-free contacts for remote indication of fault and run and is capable of accepting 0-10V or 4-20ma signals for external Building Energy Management Systems.

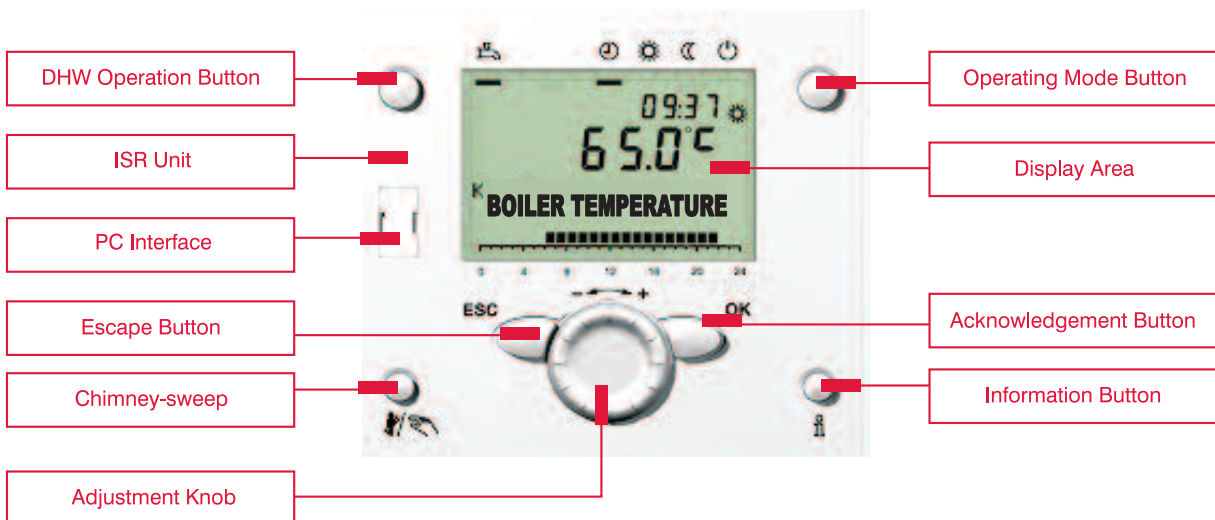
To facilitate ease of operation the ISR controller works on a menu based system, split into the relevant parameters levels such as end-user, commissioning & engineer, these menus are then displayed in sub menu's such as time and date, heating times, DHW times etc...

When the Eurocondense two lead and slave boilers are used in modular boiler applications, optional controls are available for multiple zone control. The lead allows for the control of up to 6 boilers in cascade allowing modular outputs to be installed up to 3 mw. For further details on the optional controllers, please refer to the Controls and Applications guide for condensing boilers.







For any application advice using the Eurocondense two please contact Potterton Commercial with a schematic and specification of the system and our Technical Department would be pleased to assist on **Tel 0845 070 1057, Fax 0845 070 1074**



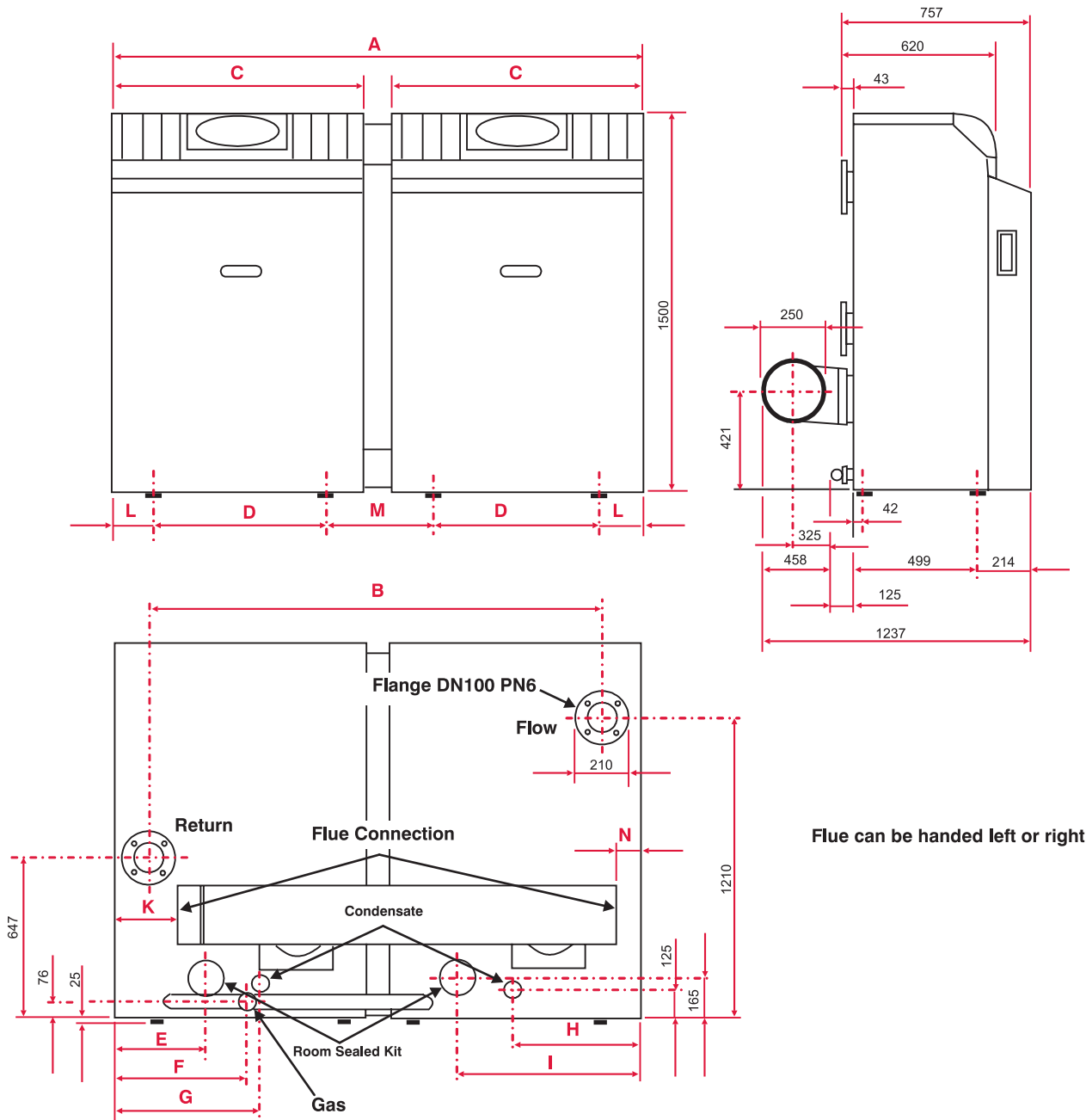
ISR - User Interface



Optional Controllers

Control Type	Sales Code		Description
RGT	PARA2RGT		Remote programmable digital thermostat allowing compensation, optimisation and night set-back control. Programmable up to 3 phases per day for heating and hot water, holiday functions and frost protection. Allows service engineer entry to in-built programming of the boiler control unit.
RGB	PARA2RGB		Remote digital thermostat allowing compensation and night-setback for zone control.
WWF	PARA2WWF		Immersion sensor for use when hot water control is required using an indirect cylinder.
CIMC	PARA2CIMC		Clip-in interface for use with a variable temperature circuit, allows control of 2nd heating pump and three-way mixer valve (Drive open/drive shut).
ZR1	PARAEC1		Single zone controller for the control of either constant temperature or variable temperature circuits. Controls individual circuit pump and 3 port motorized valves with independent room influence.
ZR2	PARAEC2		Two zone controller for the control of either constant temperature or variable temperature circuits. Controls individual circuit pump and 3 port motorized valves with independent room influence.

Eurocondense two 400 and 500kW Dimensional Details



Model	Connections		
	Di (Flue OD)	HF (Heating Flow) / HR (Heating Return)	Gas (Gas Connection)
EC two 400	Ø252	Flange DN100 PN6	2" Male thread
EC two 500			

Model	A	B	C	D	E	F	G	H	I	K	L	M	N
EC two 400	2404	2030	1142	868	473	692	666	616	811	550	208	252	150
EC two 500	2543	2240	1212	978	493	772	701	621	831	625	173	242	116

Eurocondense two 400 and 500kW Dimensional Details



The Eurocondense two is available as a lead or slave boiler, meaning that sequential control is standard. For modular installations utilising the inbuilt sequencing functions a lead boiler is required and a slave for every additional boiler. For installations with BEMS individual boiler control, all lead boilers should be used.

Product	Sales Code
Eurocondense two 400 Lead	ECTWO400
Eurocondense two 500 Lead	ECTWO500
Eurocondense two 400 Slave	ECTWO400X
Eurocondense two 500 Slave	ECTWO500X

Clearances - Consideration must be given to the exhaust gas flue when selecting the position of the boiler. Sufficient space should be left at the front so that service work can be carried out.

The recommended boiler room clearances for access, erection and maintenance are as follows:-
 REAR - 500mm SIDES - 300mm FRONT - 1000mm TOP - 500mm

All descriptions and illustrations contained in this leaflet have been carefully prepared, but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet.

Technical Data

		EC two 400	EC two 500
Output @ 80/60°C	kW	65.8-380.4	82.3-474
Output @ 50/30°C	kW	73.4-410	91.9-504
Input	kW	444	555
Efficiency @ 80/60°C gross	100%	85.7	85.4
	30%	89.8	88.8
Efficiency @ 50/30°C gross	100%	92.3	91.9
	30%	95.9	95.9
Weight Empty	kg	620	680
Water Content	lit	60	70
Hydraulic Resistance @ 11°CΔT	kpa	13.3	16.6
Hydraulic Resistance @ 20°CΔT	kpa	4.2	5.2
Water Flow Rate @ 11°CΔT	l/sec	8.69	10.86
Water Flow Rate @ 20°CΔT	l/sec	4.78	5.97
Gas Rate	m³/h	42.3	52.9
Flue Gas Volume	m³/h	563	704
High Level Ventilation to BS6644	cm²	1035	1260
Low Level Ventilation to BS6644	cm²	2070	2520
Max Flow Temp	°C	82	82
Max Operating Pressure	bar	6	6
Min Operating Pressure	bar	1	1
NOx level	mg/kWh	<20	<20

Commercial Sales Technical & Service Enquiries

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Spares

Potterton Commercial spares are available nationwide through the interpart network of approved stockists. Alternatively please contact:-

Interpart, Brooks House, Coventry Road Warwick CV34 4LL
Tel: 0844 871 1540 Web: www.interpartspares.co.uk

Applications & Installations

Our experienced technical support team are available to offer advice on any aspect of heating system design and boiler installation.

Please contact: 0845 070 1057

Service and Maintenance

heateam

Commercial Service

Our service organisation, **heateam Commercial Service** covers the whole of the UK to look after your needs for all Potterton Commercial products.

Our service office offers a wide range of specialised services including:

- Burner commissioning for all fuels
- Boiler service contracts
- Breakdown and repair services
- Burner and boiler replacement
- Oil/gas conversions
- Water treatment and descaling
- Packaged units



For more information, or to talk to an advisor, call

0845 070 1058

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