

December 2021

Aluminium range of condensing boilers

ErP Compliant 

Outputs from
30kW to 460kW

Designed to
meet carbon
reduction
targets

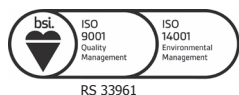
Lifetime
service
and support

Totally dependable.

POTTERTON
COMMERCIAL

Contents

Welcome	3
Aluminium range	4-5
Paramount five	6
Support	22



**Totally
dependable.**

Welcome

Potterton Commercial is one of the most recognised names in the heating industry.

Our success has been built on making products that customers can rely on, backed up by services they can trust.

You can depend on us to help at every stage of your project, from design and tender, through to installation, commissioning, handover and beyond.

Whatever the application, no matter how big or small, Potterton Commercial is totally dependable.

**High efficiency
condensing
boilers**



**Designed to
meet carbon
reduction
targets**



**Lifetime
service
and support**



Tried. Tested. Trusted.

Solid and dependable, our aluminium condensing boilers are designed for maximum combustion performance and energy efficiency.



Paramount five

Wall-hung
condensing boiler

Durable, reliable
and easy to install.

Modulation ratio

4.5:1

Single boiler output

**30kW to
115kW**

Cascade output

**Up to
460kW**



Whichever model you choose you can depend on:



Reliability

Our boilers are all factory tested before sale and we will commission them for you to make sure they work reliably and efficiently. We also offer parts and labour warranties for extra peace of mind.



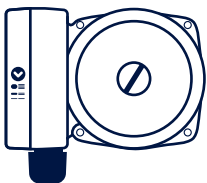
Efficiency

Our modulating boilers will meet the variable heating requirements of any building, optimising energy efficiency and running costs.



Engineering quality

All of our products are manufactured using tried and tested technology, and meet the latest ISO standards.



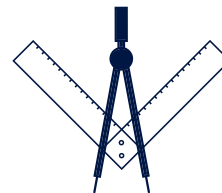
Genuine parts

We support parts for all our boilers for up to 10 years after they have stopped being sold, so the boiler will be supported throughout its lifetime.



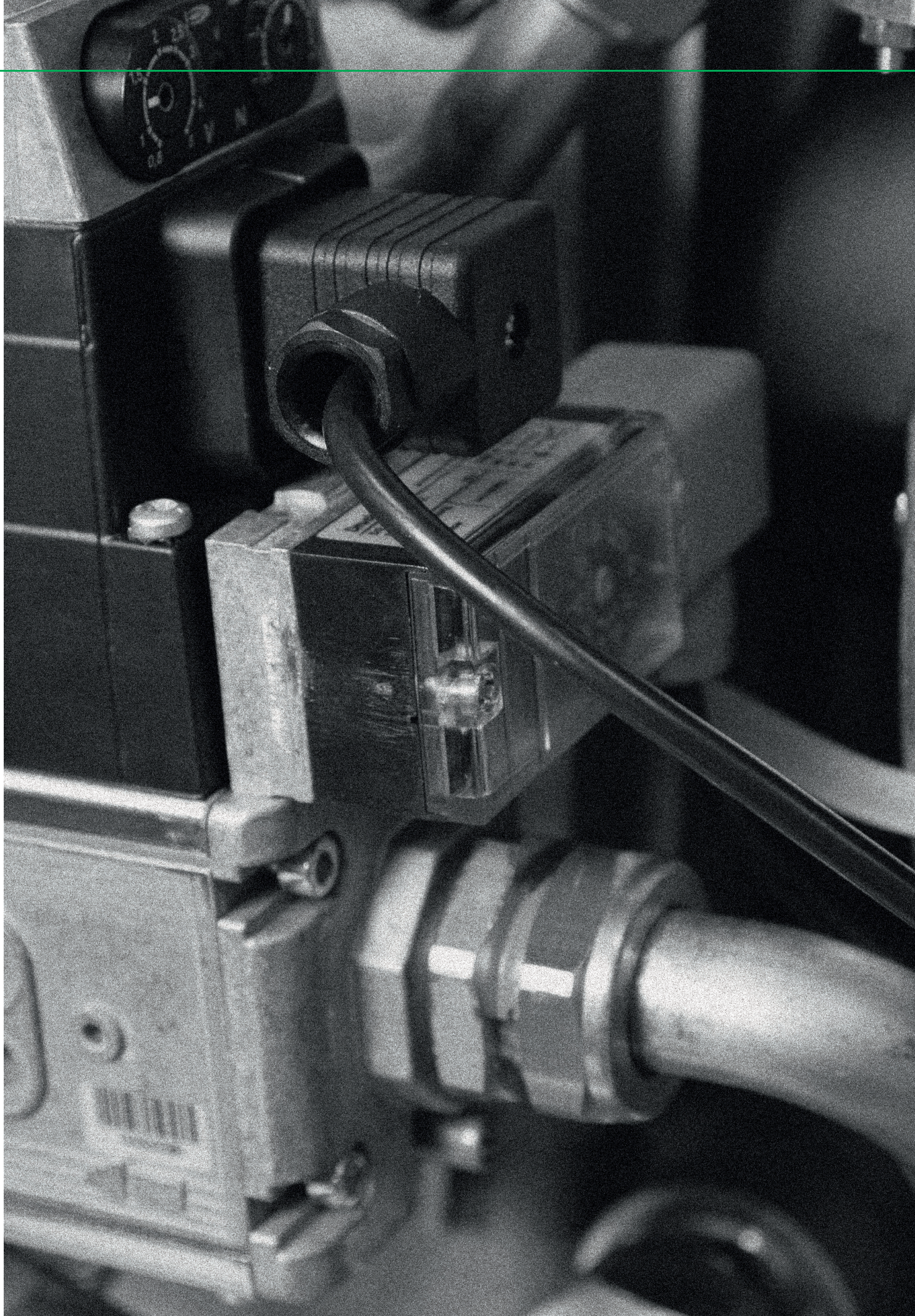
Online support

Our website contains all the information you need, including BIM and CAD files, brochures, technical specification sheets, case studies, installation manuals and user guides.



Specification and sales support

Our technical support experts can guide you through building regulations, legislation and building service engineering standards. Our dedicated sales team is never more than a phone call away and our New Design team can work with you to provide a system designed solution for your project.



Contents

Introduction	8
Features and benefits	9
Optional accessories	9
System requirements	10
Dimensions	11
Technical specification	12
Flue options	14
Cascade frame kit	16
Configurations	17
Corner group elevation	17

Paramount five

Wall-hung
condensing boiler





Paramount five

Manufactured to the latest ISO standards, Paramount five wall-hung boilers use tried and tested technology to provide efficient heating for buildings of all sizes. All outputs exceed the requirements of Building Regulations Part L, delivering exceptional energy efficiency and ultra-low NO_x emissions.

Single boiler outputs

**30kW to
115kW**

Gross seasonal efficiency

95%

Modulation ratio

4.5:1

Cascade output

**Up to
460kW**

Off mains gas

**LPG
option available**

Controller

**ISR Plus
Control Panel**

Applications

From large domestic properties to medium sized commercial premises.

Commissioning

Carried out by Potterton Commercial engineers, ensures optimum performance, efficiency and savings.

Service plans

We provide expert, professional support, ensuring optimum performance is maintained throughout the lifetime of your boiler.

*Subject to terms and conditions.
See pottertoncommercial.co.uk for more details.

Features and benefits

Features

Lightweight aluminium heat exchanger
Very compact design
Room-sealed flue
Built-in controller
Compatible with renewables
Supplied with 0-10 volt connection and LMS14

Benefits

For reliable, highly efficient heat transfer
Easy to install in small spaces. All models are similar in size to a domestic boiler (only 480mm wide)
Suitable for use in occupied spaces
User friendly control panel includes operation control system status, weather compensation, timer for heating and DHW, fault diagnostics and, where relevant, cascade operation
The controls can be programmed to work with solar thermal, biomass and buffer tanks
For connection to Building Management Systems (BMS) via optional BACnet or Modbus gateways

Optional accessories

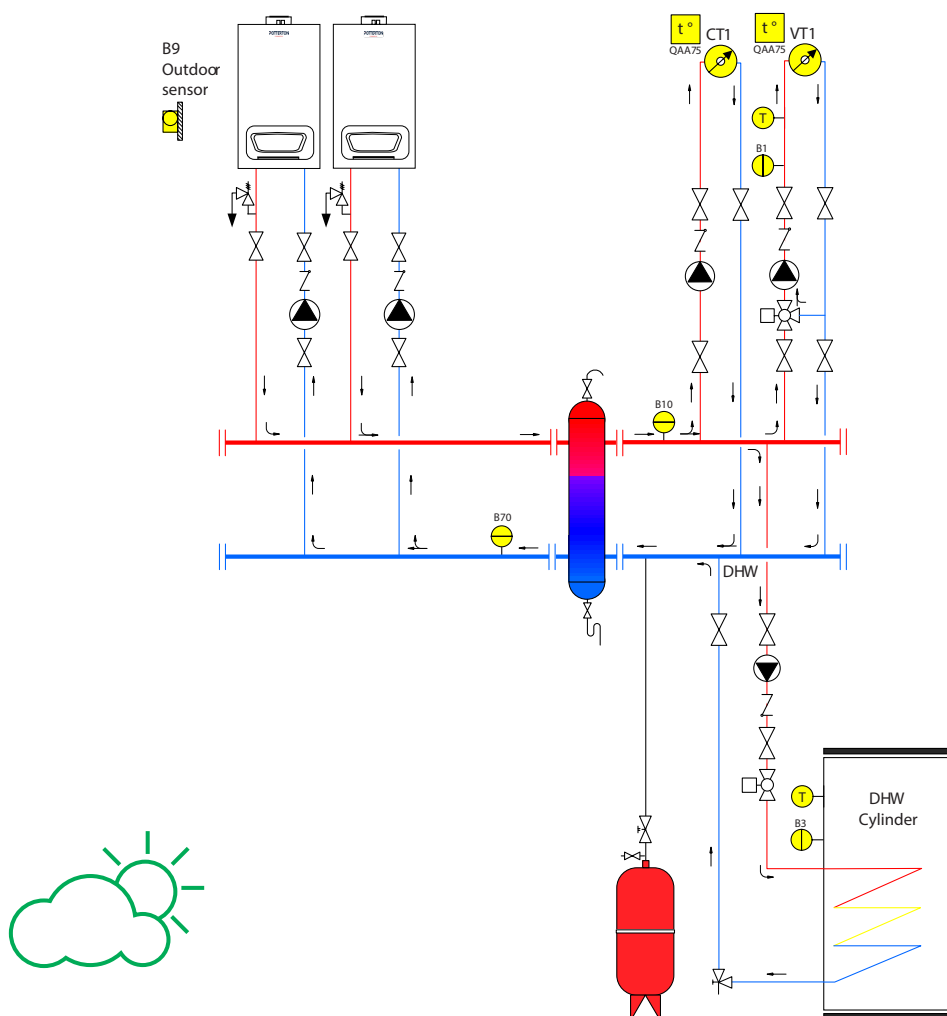
A range of controls and accessories are available for use with Paramount five, to meet the heating requirements of the building accurately and efficiently.

Control type	Sales code	Description
DHW temperature sensor	5104701	Immersion, dry pocket temperature sensor providing boiler temperature control for DHW storage vessels
Programmable digital room thermostat	5117802	Wired digital programmable room thermostat (remote from boiler). Used to control the time and temperature operation of the boiler
Digital thermostat	5138511	Wired digital room thermostat (remote from boiler) Used to control the temperature operation of the boiler
Variable temperature (VT) extension module	5138513	A module for controlling one additional variable temperature heating circuit – can be installed within the boiler case
BM BUS Module	5136893	Additional clip-in wired module, (one per boiler), to allow the boiler(s) to communicate with each other when installed in cascade as a 'master and slave' configuration
Flow temperature sensor (boiler)	5103867	Strap-on pipe sensor for monitoring boiler flow temperature. For further improvements to system performance, it is advisable to use a sensor on both flow and return. Only required for cascade configurations
Zone controller (2 Zone)	5136897	A module for controlling two additional variable or constant temperature heating circuits. Module mounts external from the boiler
Primary loop pump kit (All kW's)	5139959	Primary loop pump kit (one per boiler required) for primary circuit water circulation
LPG burner bars (30 & 40kW)	7664743	LPG kit for fuel type conversion of the Paramount five 30 and 40kW models
LPG burner bars (60kW)	7664744	LPG kit for fuel type conversion of the Paramount five 60kW model
LPG burner bars (80, 95 & 115kW)	7640599	LPG kit for fuel type conversion of the Paramount five 80, 95 & 115kW models
Modbus Gateway	7716583	ISR MODBM - Modbus Gateway for Paramount five
BACnet Gateway	7716584	ISR MODBM - BACnet Gateway Kit for Paramount five

System requirements

Installations should comply with all relevant codes of practice, British Standards and current Building Regulations. The maximum potential of the Paramount five can be achieved when it is installed on a fully condensing system. A typical heating system layout can be seen in the diagram below.

Typical heating system layout

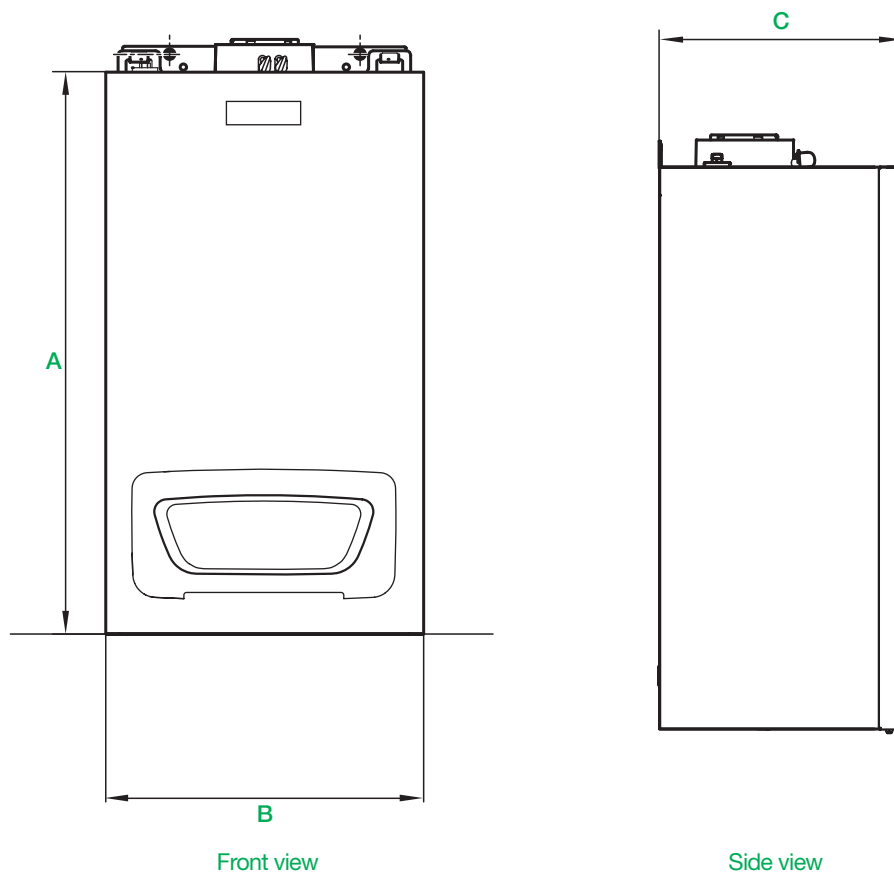


Weather compensated systems

If the heating curve is correctly selected, the outside sensor will dictate the heating flow temperature to match the heating demand of the building. The optional room control will shut down the boiler(s) if the building meets the set-point temperature.

Dimensions

Paramount five 30-115



			Paramount five 30	Paramount five 40	Paramount five 50	Paramount five 60	Paramount five 80	Paramount five 95	Paramount five 115
Dimension A	Height	mm	852	852	852	852	852	852	852
Dimension B	Width	mm	480	480	480	480	480	480	480
Dimension C	Depth	mm	407	407	447	447	542	570	570
Clearances	Bottom	mm	500	500	500	500	500	500	500
	Left hand	mm	20	20	20	20	20	20	20
	Front	mm	400	400	600	600	600	600	600
	Right hand	mm	20	20	20	20	20	20	20
	Top	mm	300	300	400	400	400	400	400

Technical specification

Specification 30-115kW			30	40	50	60	80	95	115
Performance									
	Fuel Type								
Output @ 80 / 60°C	NG	kW	29.2	36.8	48.7	56.4	74.9	92.5	111.7
Output @ 50 / 30°C	NG	kW	31.2	39.6	52.1	60.4	80.2	98.6	119.3
Input (gross) maximum	NG	kW	33.3	42.2	55.5	64.4	85.5	105.5	127.6
Output @ 80 / 60°C	LPG	kW	29.2	36.8	48.7	56.3	74.7	92.2	111.7
Output @ 50 / 30°C	LPG	kW	31.7	39.3	52.1	60.1	79.7	98.1	118.6
Input (gross) maximum	LPG	kW	33.3	42.2	54.3	64.4	85.5	105.5	127.6
Efficiency									
	Value (%)								
Efficiency @ 50 / 30°C – 100% load	% gross		93.7	87.4	93.9	93.8	93.8	93.5	93.5
Efficiency @ 50 / 30°C – 30% load	% gross		97.9	97.8	97.9	97.8	97.8	98	97.8
Current building regulations – Part L2 seasonal efficiency	% gross		97.1	95.3	95.6	95.7	96.2	95.8	95.7
ErP efficiency rating			A	A	A	A	N/A	N/A	N/A
Gas									
Gas consumption (natural gas)	m³/h		3.2	4.0	5.3	6.1	8.1	10.1	12.2
Gas consumption (LPG)	kg/h		2.33	2.95	3.89	4.51	5.98	7.38	8.94
Inlet gas pressure (natural gas – G20)	mbar		17-25						
Inlet gas pressure (LPG – G31)	mbar		25-45						
Gas connection size	inches		3/4	3/4	1	1	1	1	1
Gas connection type	threads		Parallel threads						
Flue									
Flue gas volume @ 80 / 60°C (NG)	m³/h at STP		46.4	58.8	77.4	89.7	119.1	147.1	177.6
Flue gas volume @ 50 / 30°C (NG)	m³/h at STP		49.6	63	82.8	96	127.5	156.8	189.7
Flue gas volume @ 80 / 60°C (LPG)	m³/h at STP		46.4	58.8	77.4	89.7	119.1	147.1	177.6
Flue gas volume @ 50 / 30°C (LPG)	m³/h at STP		49.6	63	82.8	96	127.5	156.8	189.7
Maximum flue gas pressure @ outlet	Pa		110	110	110	110	110	150	180

Specification 30-115kW

30

40

50

60

80

95

115

Hydraulic

Water flow rate @ 11°C ΔT	l/s	0.63	0.8	1.06	1.22	1.63	2.01	2.43
Water flow rate @ 20°C ΔT	l/s	0.35	0.44	0.58	0.67	0.89	1.1	1.34
Hydraulic resistance @ 11°C ΔT	kPa	26.1	37	23.4	26.9	25.9	38.6	55.9
Hydraulic resistance @ 20°C ΔT	kPa	10.4	14.7	6.2	6.8	8.5	12.5	17.8
Water content	litres	3.6	3.6	4.7	4.7	5.8	7.8	7.8
Flow/return connection size	inches	1	1	1 ½	1 ½	1 ½	1 ½	1 ½
Flow/return connection type	threads	Parallel threads						
Flue connection size	mm	80/125	80/125	110/160	110/160	110/160	110/160	110/160
Minimum boiler operating pressure	bar	3	3	4	4	4	4	4
Maximum boiler operating pressure	bar	1						
Maximum flow temperature	°C	85						

General

Appliance dry weight	kg	53	53	61	61	72	84	84
Dimensions W x D x H	mm	480 x 407 x 852	480 x 407 x 852	480 x 447 x 852	480 x 447 x 852	480 x 542 x 852	480 x 570 x 852	480 x 570 x 852
NO _x level (dry @ 0% O ₂) EN15502	mg/kWh	17	20	20	20	20	25	30
CO ₂ content – natural gas	%	8.3-8.8	8.3-8.8	8.3-8.8	8.3-8.8	8.5-9	8.5-9	8.5-9
CO ₂ content – LPG	%	10.3-10.8						
Noise levels @ 1 metre from unit (room-sealed)	dB(A)	51	54	55	55	55	58	60
High level ventilation (BS 6644)*	cm ²	60	76	100	116	154	190	230
Low level ventilation (BS 6644)*	cm ²	120	152	200	232	308	380	460

Electrical

Power consumption	W	55	70	88	100	112	170	200
Nominal supply voltage	V / Hz	230V~ / 50 Hz						

Flue options

Potterton Commercial offers a comprehensive choice of flues for Paramount five boilers, suitable for practically every application, including horizontal or vertical concentric (C13 and C33) flues for room-sealed applications.

If using conventional (B23) and modular flues, we recommend you consult with a flue expert on the design and supply of the flue system.

Maximum flue runs

Paramount five type	Flue class	Flue configuration	Flue size	Max length	Max no. bends (87 deg)
30/40	C13	Concentric horizontal	80/125	10	2
	C33	Concentric vertical	80/125	13	0
	B23	Single skin conventional	80		
50/60	C13	Concentric horizontal	100/150	5	2
	C33	Concentric vertical	100/150	22	0
	B23	Single skin conventional	110		
80	C13	Concentric horizontal	100/150	5	2
	C33	Concentric vertical	100/150	13	0
	B23	Single skin conventional	110		
95	C13	Concentric horizontal	100/150	5	2
	C33	Concentric vertical	100/150	10	0
	B23	Single skin conventional	110		
115	C13	Concentric horizontal	100/150	5	2
	C33	Concentric vertical	100/150	10	0
	B23	Single skin conventional	110		

Flue header kits	Part No.
150 mm Flue Cascade Header Kit	7697347
150 mm Flue Cascade Extension Header Kit	7697352
200 mm Flue Cascade Header Kit	7697355
200mm Flue Cascade Extension Header Kit	7697406

Common concentric flue components

Model	Sales code	Flue size	Description	
30-40	5136146	Ø80/125	Horizontal concentric flue. Inc: terminal & wall plates	
50-60-80-95-115	5136170	Ø100/150*		
30-40	5136147	Ø80/125	Vertical concentric flue kit	
50-60-80-95-115	5136171	Ø100/150*		
30-40	5136148	Ø80/125	1 metre concentric extension	
50-60-80-95-115	5136159	Ø100/150		
30-40	5136149	Ø80/125	0.5 metre concentric extension	
50-60-80-95-115	5136160	Ø100/150		
30-40	5136151	Ø80/125	87° Concentric elbow	
50-60-80-95-115	5136162	Ø100/150		
30-40	5136150	Ø 80/125	45° Concentric elbow	
50-60-80-95-115	5136161	Ø100/150		
30-40	5136152	Ø 80/125	Wall stand off brackets	
50-60-80-95-115	5136163	Ø100/150		
30-40	E105	Ø80/125	Terminal cage guard	
50-60-80-95-115	E630	Ø100/150		
30-40	E065	Ø80/125	Flat roof flashing	
50-60-80-95-115	E207	Ø100/150		
30-40	E066	Ø80/125	Pitched roof flashing	
50-60-80-95-115	E208	Ø100/150		

*100/150 adaptor also provided.

External flue kit

External wall starter kit

A Through wall piece with bottom elbow

B Air intake

C 80/125-100/150 adaptor
(Paramount Five 50/60/80/95 and 115kW)

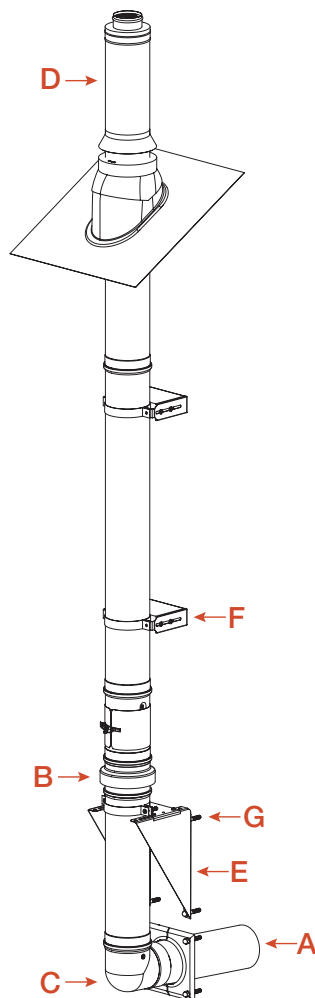
D 100/150 flue terminal

E Bottom wall support

F Wall brackets x2

G Fixings x3

110/160-100/150 adaptor is also provided with the
Paramount Five 50/60/80/95 and 115kW starter kit



Model	Paramount Five						
	30kW	40kW	50kW	60kW	80kW	95kW	115kW
Starter kit	5138541	5138541	5138542	5138542	5138542	5138542	5138542
Optional flue accessories							
1 metre extension	5138545	5138545	5138545	5138545	5138545	5138545	5138545
0.5 metre extension	5138546	5138546	5138546	5138546	5138546	5138546	5138546
45° elbow (x2)	5138547	5138547	5138547	5138547	5138547	5138547	5138547
Inspection tee	5138548	5138548	5138548	5138548	5138548	5138548	5138548

Plume management kit

Flue size 80/125 (Paramount Five 30 and 40kW)

A Horizontal terminal (610mm) including clamp

B Wall plate 125mm (220x220mm) x2

C 90° elbow 80mm x2

D 1 metre extension 80mm including wall bracket

E Nose piece 80mm (150mm)

Does not include initial elbow on boiler.
See below table for options

Flue size 100/150 (Paramount Five 50/60/80/95 and 115kW)

A Horizontal terminal (600mm) including clamp

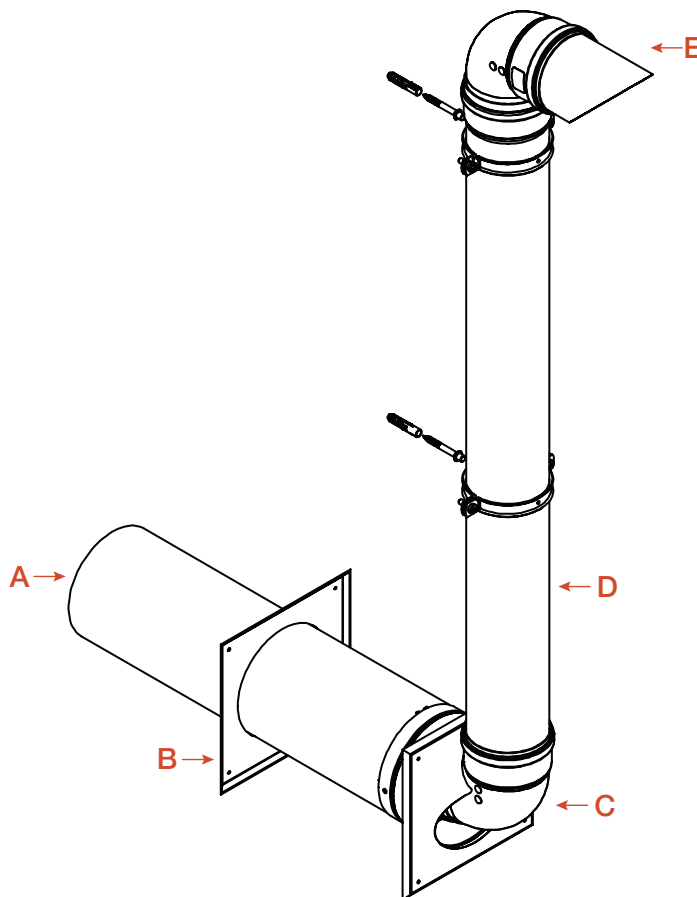
B Wall plate 150mm (220x220mm) x2

C 87° elbow 100mm x2

D 1 metre extension 100mm including wall bracket

E Nose piece 100mm (170mm)

Does not include initial elbow on boiler.
See below table for options



Model	30kW	40kW	50kW	Paramount Five 60kW	80kW	95kW	115kW
Plume Management Kit	5136902	5136902	5138512	5138512	5138512	5138512	5138512
Optional flue accessories							
1 metre extension – 80	5138537	5138537	-	-	-	-	-
1 metre extension – 100	-	-	5138540	5138540	5138540	5138540	5138540
45° elbow – 80	5138536	5138536	-	-	-	-	-
45° elbow – 100	-	-	5138539	5138539	5138539	5138539	5138539
90° elbow – 80	5138535	5138535	-	-	-	-	-
90° elbow – 100	-	-	5138538	5138538	5138538	5138538	5138538

Cascade flue system

The Potterton cascade flue system is designed for internal use in a plant room and not for external installation. The system is supplied complete with all associated components. The basic PP 150mm and 200mm flue cascade kits are suitable for the connection of two boilers (2 x Paramount Five) in an in-line configuration using 700mm centres and include a non-return valve. For the connection of additional boilers, simply attach a cascade extension header kit for each additional boiler.

A fall should be maintained to the cascade header which equates to 3 degrees. This means the flue rises 52mm for every metre. Equating this to our flue centres of 700mm, the flue connection length (from the boiler to the header) increases by 36mm for each boiler (e.g. a 4000mm Cascade Header requires a differential of 208mm from one end to the other).

Please note that 115kW Paramount Five boilers are not suitable for use with our cascade flue system. Customers wishing to cascade boilers from 115kW and above should consult with a specialist chimney supplier for design input.

Cascade flue kits

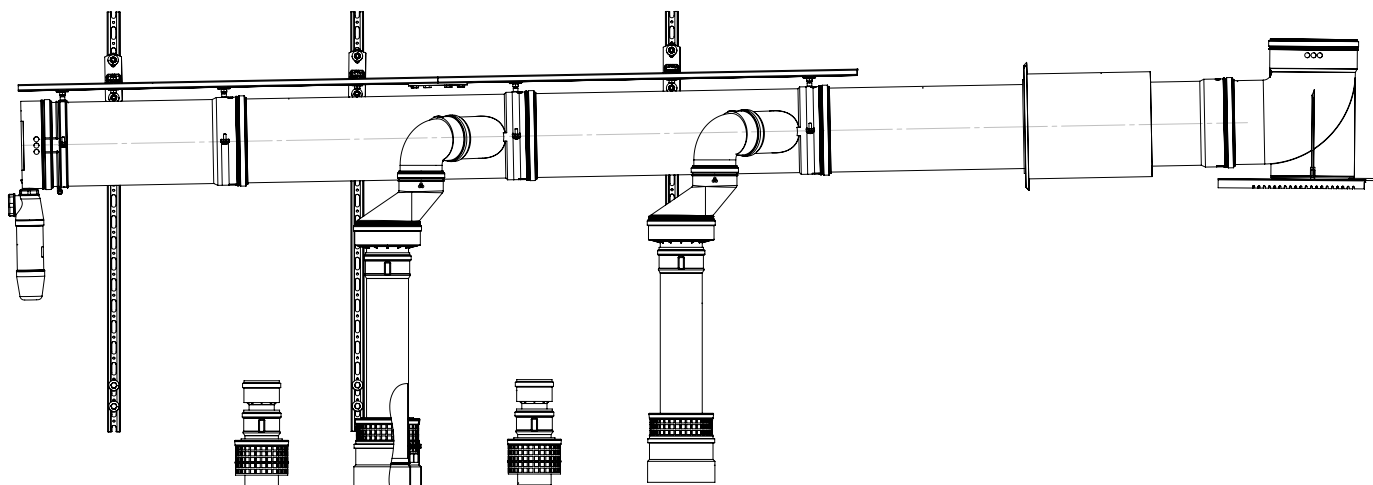
7697347	150mm In-line Flue Cascade Header Kit
7697352	150mm In-line Flue Cascade Header Kit (Extension)
7697355	200mm In-line Flue Cascade Header Kit
7697406	200mm In-line Flue Cascade Header Kit (Extension)

NRVs

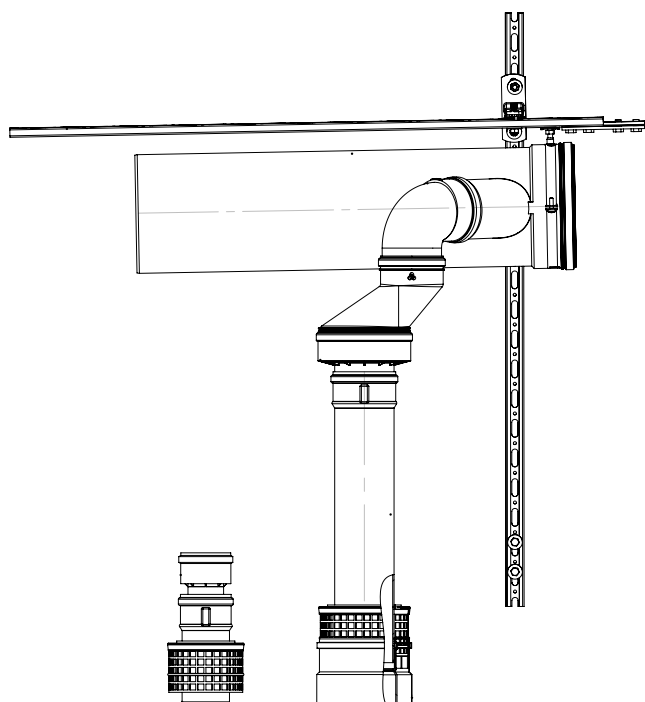
30 and 40kW Paramount Five flue non return valve	5138526	Flue none return valve kit for boilers in cascade configurations (30 and 40kW models)
50/60/80/95 and 115kW Paramount Five flue non return valve	5138518	Flue none return valve kit for boilers in cascade configurations (50/60/80/95 and 115kW models)

Paramount Five flue non return valves are installed on the air intake inside the boiler casing.

Basic cascade flue kit



Basic cascade flue extension kit

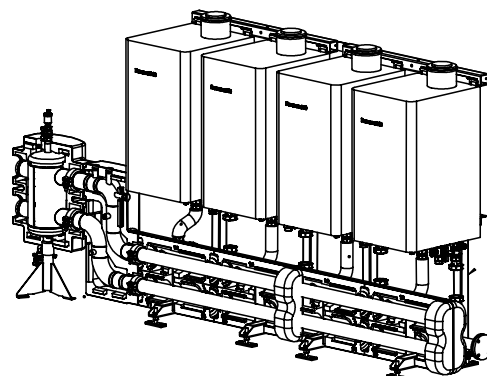


Max no. of boilers in
a cascade connection

Paramount Five	ø150mm (240kW max)	ø200mm (460kW max)
30kW	6	6
40kW	6	6
50kW	4	6
60kW	4	6
80kW	2	5
95kW	2	3

Cascade frame kit

The Paramount five cascade frame kit accommodates up to four boilers, delivering a maximum output of 460kW, spreading heat demand across multiple boilers.



Number of boilers

Up to **4**

Maximum output

Up to **460kW**

Modulation ratio

4.5:1
per boiler

Features

Compact, modular floor-standing framework

Adjustable mounting feet

Hydraulically sized flow/return manifolds

Victaulic pipe fittings

Robust insulation kits for flow/return headers, including hydraulic manager

Class A primary circulator pumps

Steel gas manifold pipework with welded brackets

Hydraulic system manager including air and dirt separation, and velocity management.

Magnetic filtration optional extra available

Concentric and conventional flue options

Benefits

Saves space and reduces installation time

Safe and stable for uneven surfaces

Matches the designed total flow rate, whatever the system load

Quick and easy jointing. Saves time and effort

Minimises heat loss

ErP ready

Robust, durable flow/return and gas headers

Protects boiler components by ensuring clean system water, removes air and prevents noise

Additional protection for the boilers and system water

Flexible siting, easy installation

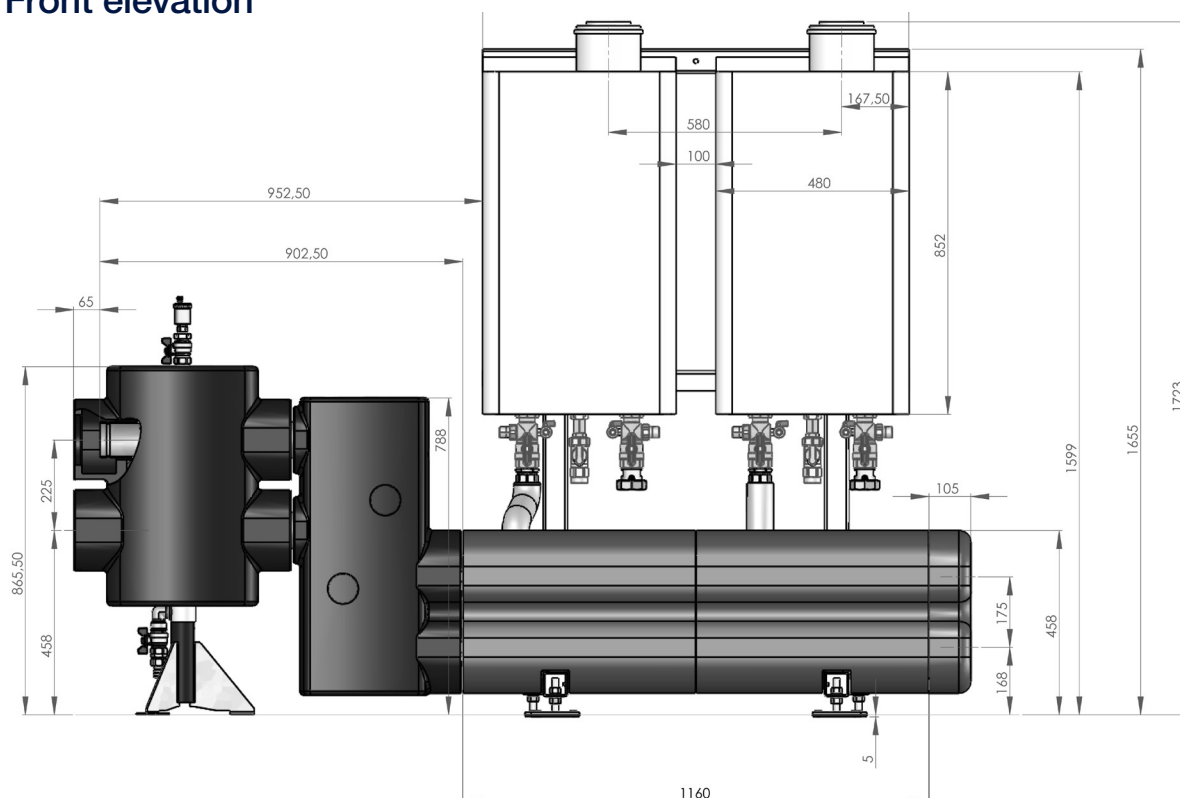
Nationwide commissioning service

To ensure maximum efficiency and cost savings, we offer a full commissioning service, carried out by our own national team of Gas Safe registered, Potterton Commercial trained engineers.

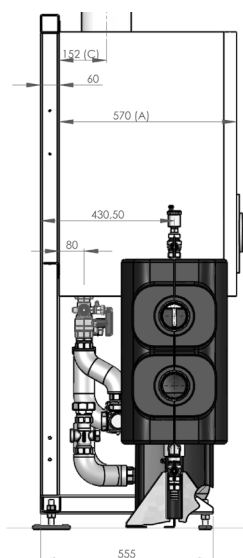
For more information please visit www.pottertoncommercial.co.uk

Configurations

Front elevation



Side elevation



Inline

Part No.

2 x Paramount five 50, 60, 80, 95 or 115kW

5135496

3 x Paramount five 50, 60, 80, 95 or 115kW

5135497

4 x Paramount five 50, 60, 80, 95 or 115kW

5135498

4 x Paramount five 95 and 115kW

5135501

Corner

Part No.

4 x Paramount five 60 & 80 in a 2 boiler x 2 boiler corner group

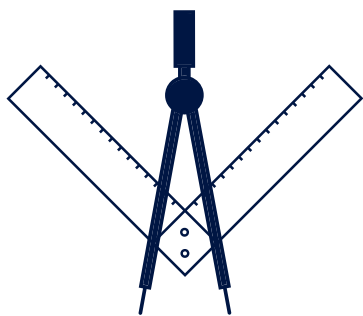
5135502

4 x Paramount five 95 & 115 in a 2 boiler x 2 boiler corner group

5135503

Support you can depend on

We want to help you achieve the best results, quickly and cost effectively. Whatever you need, expert support is never more than a phone call away.



Applications support

We can guide you through the requirements of Building Regulations Part L2a and b and help you meet legislation and building service engineering standards. We can provide application support, advice and solutions by email, on the phone or on site, at all stages of your project.



Technical information

All the technical information you need is easy to find on our website, using your smart phone, tablet or PC:

- BIM files
- CAD files
- Brochures
- Technical specification sheets
- Case studies
- Installation manuals
- User guides



Specification and sales support

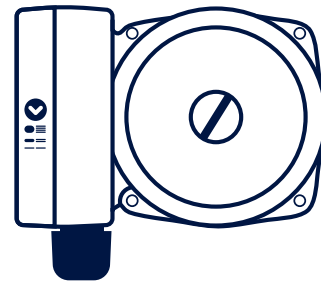
The Potterton Commercial team has achieved the ISO 9001 quality management standard and the Investors in People - bronze award, so you know you can depend on us to give you outstanding service.

We are here to help you book commissioning, service or repair visits, and to register your warranties.

Our technical helpline is manned by former engineers with industry experience. They can provide technical information, installation support and help with fault finding and diagnostics.

We have a national network of engineers who are trained on all our products.

The can provide a commissioning service as well as carrying out service and repair work.



Genuine parts

Genuine manufacturer's parts for all Potterton Commercial boilers are available through a national network of stockists. They are available for up to 10 years after manufacture of the boiler stops, so you know your boiler will be supported.

Visit www.baxigenuineparts.co.uk to find a stockist or to search for a part by name, brand or Gas Council number.

sales 0345 070 1055
technical 0345 070 1057
web pottertoncommercial.co.uk

Registered office address: Baxi Heating UK, Coventry Road, Warwick, CV34 4LL

December 2021

Totally dependable.

POTTERTON
COMMERCIAL

BAXI
Commercial Solutions

Complete heating and hot water
solutions for your commercial projects.

remeha


ANDREWS
WATER HEATERS

HEATRAESADIA

**PACKAGED
PLANT
SOLUTIONS**

POTTERTON
COMMERCIAL