

Stainless steel range of condensing boilers

Outputs from
50kW to 660kW

Designed to
meet carbon
reduction
targets

Lifetime
service
and support

Eurofluid

HANDLING SYSTEMS

POTTERTON

COMMERCIAL

Works every time.

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**Works
every
time.**

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 works every time.

High efficiency
condensing
boilers

Designed to
meet carbon
reduction
targets

Lifetime
service
and support

Tried. Tested. Trusted.

Solid and dependable Sirius condensing boilers are designed for maximum combustion performance and energy efficiency.



Sirius WH

Wall hung condensing boiler

Compact, lightweight, industry leading modulation.

Modulation ratio

9:1

Single boiler output

50kW to 110kW

Cascade output

Up to 660kW



Sirius FS

Floor standing condensing boiler

Ideal for replacement projects, large domestic and all commercial premises.

Modulation ratio

9:1

Single boiler output

50kW to 110kW

Cascade output

Up to 440kW



Sirius FS

Floor standing condensing boiler

Cost effective heating solution for large projects, such as schools, hotels, nursing homes and leisure facilities.

Modulation ratio

10:1

Single boiler output

400kW and 525kW

Cascade output

Up to 1050kW

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.



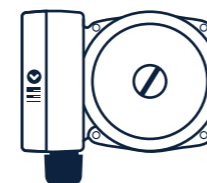
Efficiency

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.



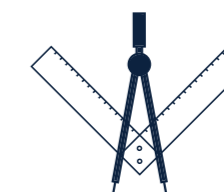
Genuine parts

We support parts for all our boilers for up to 10 years after they have stopped being sold, so you know your boiler will be supported.



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.

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Sirius WH

50-110kW
Wall hung condensing boiler



Sirius WH

Compact and lightweight, Sirius WH condensing boilers offer a market-leading modulation ratio of 9:1 and come with weather compensation as standard, ensuring high seasonal efficiency all year around.

Single boiler outputs

50kW to 110kW

Gross seasonal efficiency

96%

Modulation ratio

9:1

Cascade output

Up to 660kW

Off mains gas

LPG option available

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

Stainless steel heat exchanger

Very compact design with reduced weight

Room sealed flue

Weather sensor as standard

1" flow and return connections (50kW, 60kW and 70kW models)

Class A modulating pump option

The controls can be programmed to work with solar thermal, biomass and buffer tanks

Benefits

Designed for maximum combustion performance and energy efficiency

Easy to install in small spaces. 50kW/60kW models similar in size to a domestic boiler

Suitable for use in living spaces

Output varies according to outside conditions, reducing running costs

No need for major system pipework modifications

ErP ready

Sustainable, energy efficient, solution for a wide range of applications

Optional controls

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

Control type

Sales code

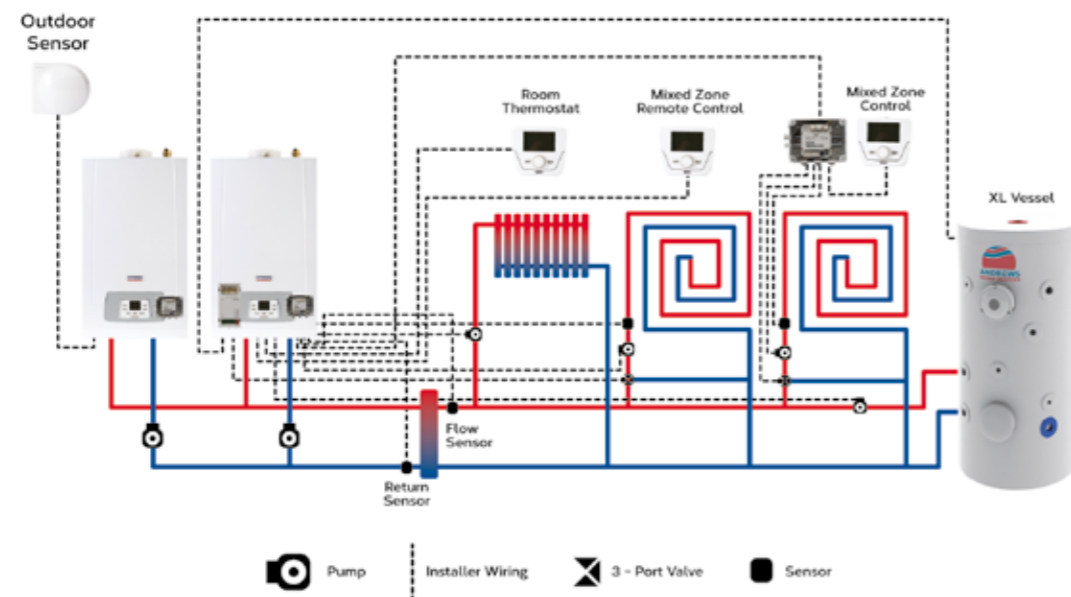
Wired remote control	5140905
DHW temperature sensor	5104701
Extension module	5140909
Flow temperature sensor	5103867
BM bus communication module	5140908
Remote zone controller kit	5140910
External pump	5139959
Integral primary pump	5140903 - WH50, 60 & 70 5140904 - WH90 & 110
LPG conversion kit	5140911 - WH50 5140912 - WH60 5140913 - WH70 5140914 - WH90 5140915 - WH110

System requirements

All installations should comply with all relevant codes of practice, British Standards and current Building Regulations. The maximum efficiency of the Sirius WH can be achieved when it is installed on a fully condensing system with suitable distribution design temperatures.

Typical heating system layout

Cascade option for two or more boilers

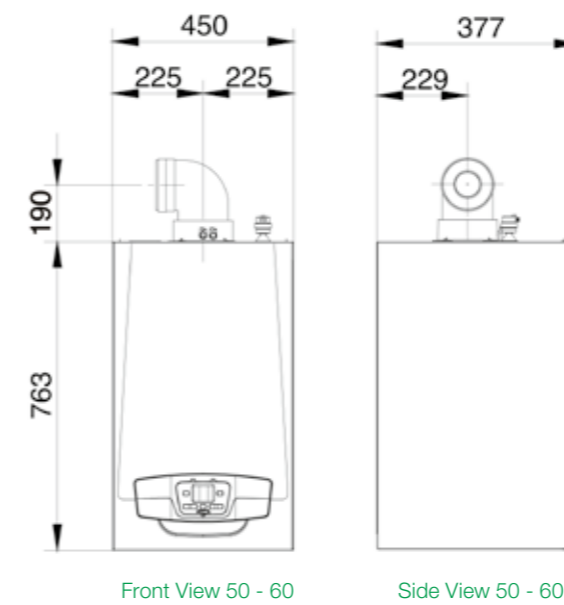


Weather compensated systems

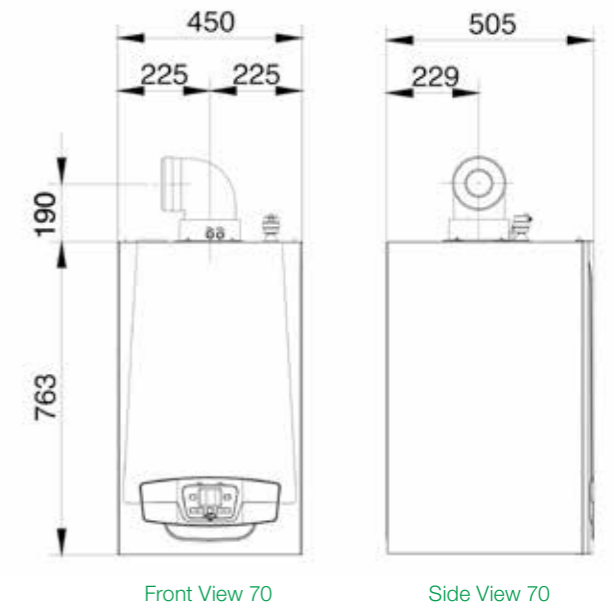
The outside sensor will dictate the heating flow temperature to match the heating demand of the building (if the heating curve is correctly selected). The optional room control will shut down the boiler(s) if the building meets the set-point temperature. It also provides optimum start/stop and night set-back for the heating circuits.

Dimensions

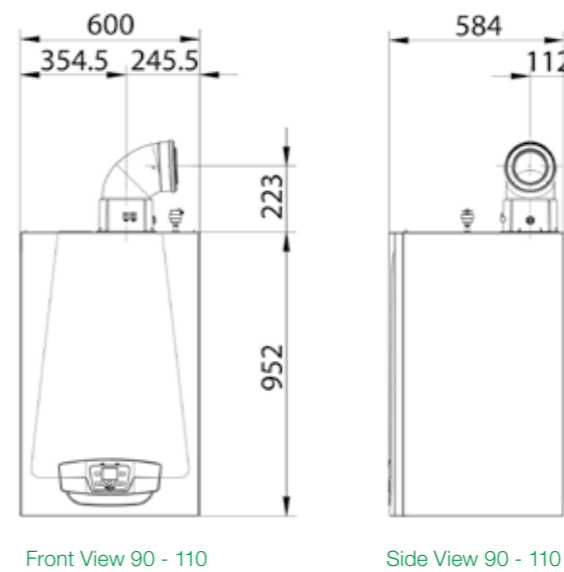
Sirius WH 50 - 60



Sirius WH 70



Sirius WH 90 - 110



Technical specification

			Sirius WH 50	Sirius WH 60	Sirius WH 70	Sirius WH 90	Sirius WH 110
Performance		Fuel Type					
Output @ 80/60°C	NG	kW	45.1	55	65.1	85.1	102
Output @ 50/30°C	NG	kW	48.6	59.4	70.3	92.2	110.2
Input (Gross) Maximum	NG	kW	51.4	62.8	74.3	97.0	116.4
Output @ 80/60°C	LPG	kW	45.1	55	65.1	85.1	102
Output @ 50/30°C	LPG	kW	48.6	59.4	70.3	92.2	110.2
Input (Gross) Maximum	LPG	kW	46.3	56.6	66.9	87.4	104.9
Efficiency		Value (%)					
Efficiency @ 80 / 60°C - 100% Load	% Gross		87.8	87.6	87.6	87.7	87.6
Efficiency @ 50 / 30°C - 30% Load	% Gross		97.1	96.8	96.5	96.9	96.8
Current Building Regulations - Part L2 Seasonal Efficiency	% Gross		96.6	96.4	96.1	96.6	96.4
Gas							
Gas Consumption (Natural Gas)	m ³ /h		4.9	5.98	7.07	9.25	11.1
Gas Consumption (LPG)	Kg/h		3.6	4.4	5.2	6.6	7.92
Inlet Gas Pressure (Natural Gas - G20)	m/bar				20		
Inlet Gas Pressure (LPG - G33)	m/bar				37		
Gas Connection Size	inch		¾	¾	¾	1	1
Gas Connection Type			Male Thread				
Flue							
Flue Gas Volume at 80/60°C (NG)	m ³ /h at STP		67.6	82.6	97.7	127.6	147.2
Flue Gas Volume at 50/30°C (NG)	m ³ /h at STP		62.8	76.5	90.5	117.7	136.2
Flue Gas Volume at 80/60°C (LPG)	m ³ /h at STP		61.5	75.2	88.9	114.1	139.3
Flue Gas Volume at 80/60°C (LPG)	m ³ /h at STP		57.1	69.6	82.4	105.2	128.9
Max Flue Gas Pressure @ Outlet	pa		270	270	270	200	200

		Sirius WH 50	Sirius WH 60	Sirius WH 70	Sirius WH 90	Sirius WH 110
Hydraulic						
Water Flow Rate @ 15°C ΔT	l/s	0.72	0.88	1.04	1.36	1.63
Water Flow Rate @ 20°C ΔT	l/s	0.54	0.66	0.78	1.02	1.22
Hydraulic Resistance @ 15°C ΔT	kPa	85	92	45	35	36
Hydraulic Resistance @ 20°C ΔT	kPa	48	55	30	22	22
Water Content	litres	4	5	6	9	10
Flow & Return Connection Size	inch	1	1	1	1½	1½
Flow & Return Connection Type		Male Thread				
Flue Connection Size	mm	80/125	80/125	80/125	110/160	110/160
Maximum Boiler Operating Pressure	bar	4				
Minimum Boiler Operating Pressure	bar	1				
Maximum Flow Temperature	°C	80				
General						
Appliance Dry Weight	Kg	40	40	50	83	93
Dimension W x D x H	mm	450 x 377 x 766	450 x 377 x 766	450 x 505 x 766	600 x 584 x 952	600 x 584 x 952
NOx Level (Dry @ 0% O2)	mg/kWh	29.8	34.1	34.8	36.5	24.7
CO ₂ Content – Natural Gas	%	8.5 - 9	9	8.5 - 9	8.5 - 9	9 - 9.2
CO ₂ Content – LPG	%	9.5 - 10	9.4 - 10.1	9.5 - 10	9.9 - 10	9.5 - 10
Noise Levels @ 1 metre from unit	dB(A)	48.6	47.5	48.5	49.5	48.8
High Level Ventilation (BS 6644)	cm ²	93	113	134	175	210
Low Level Ventilation (BS 6644)	cm ²	185	226	268	350	420
Electrical						
Power consumption (with pump)	W	190	210	210	275	320
Nominal Supply Voltage	V/Hz	230 v 1 Ph 50 Hz				



Flue options











Potterton Commercial offers a comprehensive choice of flues and accessories for Sirius WH 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.

Flue

Boiler	Flue size	Number of bends 87°			
		1	2	3	4
WH50	Ø 80/125	9m	8m	7m	6m
WH60	Ø 80/125	9m	8m	7m	6m
WH70	Ø 80/125	9m	8m	7m	6m
WH90	Ø 100/150	9m	8m	7m	6m
WH110	Ø 100/150	9m	8m	7m	6m

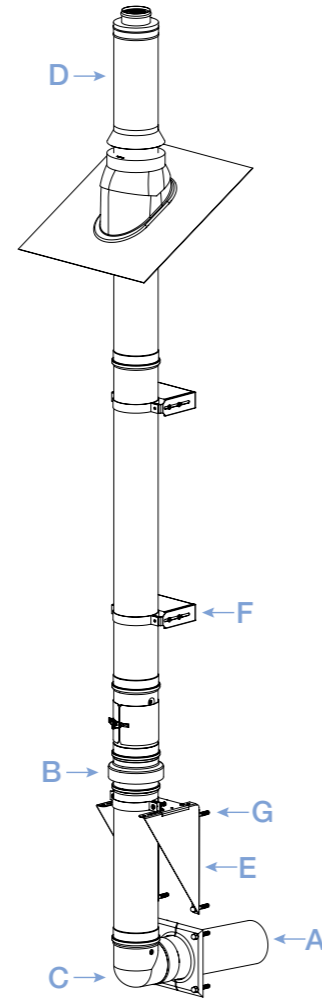
Common concentric flue components

Model	Sales code	Flue size	Description	
WH 50/60/70	5136146	Ø80/125	Horizontal concentric flue. Inc: terminal and wall plates	
WH 90/110	5136170	Ø100/150		
WH 50/60/70	5136147	Ø80/125	Vertical concentric flue kit	
WH 90/110	5136171	Ø100/150		
WH 50/60/70	5136148	Ø80/125	1 metre concentric extension	
WH 90/110	5136159	Ø100/150		
WH 50/60/70	5136149	Ø80/125	0.5 metre concentric extension	
WH 90/110	5136160	Ø100/150		
WH 50/60/70	5136151	Ø80/125	87° Concentric elbow	
WH 90/110	5136162	Ø100/150		
WH 50/60/70	5136150	Ø 80/125	45° Concentric elbow	
WH 90/110	5136161	Ø100/150		
WH 50/60/70	5136152	Ø 80/125	Wall stand off brackets	
WH 90/110	5136163	Ø100/150		
WH 50/60/70	E105	Ø80/125	Terminal cage guard	
WH 90/110	E630	Ø100/150		
WH 50/60/70	E065	Ø80/125	Flat roof flashing	
WH 90/110	E207	Ø100/150		
WH 50/60/71	E066	Ø80/125	Pitched roof flashing	
WH 90/111	E208	Ø100/150		

External flue

External wall starter kit

- A Through wall piece with bottom elbow
- B Air intake
- C 80/125-100/150 adaptor (Sirius WH 50, 60 & 70 kW)
- D 100/150 flue terminal
- E Bottom wall support
- F Wall brackets x2
- G Fixings x3



Model	WH50	WH60	WH70	WH90	WH110
Starter kit	5138541	5138541	5138541	5138542	5138542
1 metre extension	5138545	5138545	5138545	5138545	5138545
0.5 metre extension	5138546	5138546	5138546	5138546	5138546
45° elbow (x2)	5138547	5138547	5138547	5138547	5138547
Inspection tee	5138548	5138548	5138548	5138548	5138548

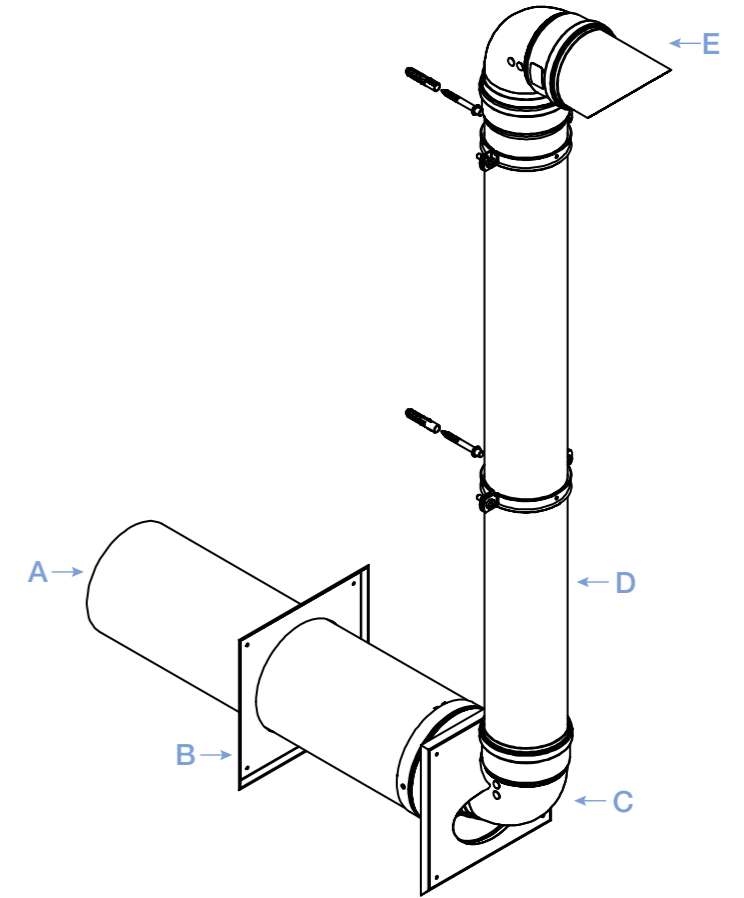
Plume management kit

Flue size 80/125 (Sirius WH 50, 60 and 70kW)

- 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

Flue size 100/150 (Sirius WH 90 and 110kW)

- 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



Model	WH50	WH60	WH70	WH90	WH110
Starter Kit	5136902	5136902	5136902	5138512	5138512
1 metre extension - 80	5138537	5138537	5138537	-	-
1 metre extension - 100	-	-	-	5138540	5138540
45° elbow - 80	5138536	5138536	5138536	-	-
45° elbow - 100	-	-	-	5138539	5138539
90° elbow - 80	5138535	5138535	5138535	-	-
90° elbow - 100	-	-	-	5138538	5138538

Cascade frame kit

The Sirius WH cascade frame kit accommodates up to six boilers, delivering a maximum output of 660kW, spreading heat demand across multiple boilers.



Number of boilers	Maximum output	Modulation ratio
Up to 6	Up to 660kW	9:1 per boiler

Features

- Compact, modular floor-standing framework
- Adjustable mounting feet
- Hydraulically sized flow and return manifolds
- Victaulic pipe fittings
- Robust insulation kits for flow and return headers, including hydraulic manager
- Class A primary circulator pumps
- Omega-Flex Trac-pipe used for gas pipework
- Steel gas manifold pipework with welded brackets
- Hydraulic system manager, including air, dirt and magnetic filtration and flow management
- Concentric and conventional flue options

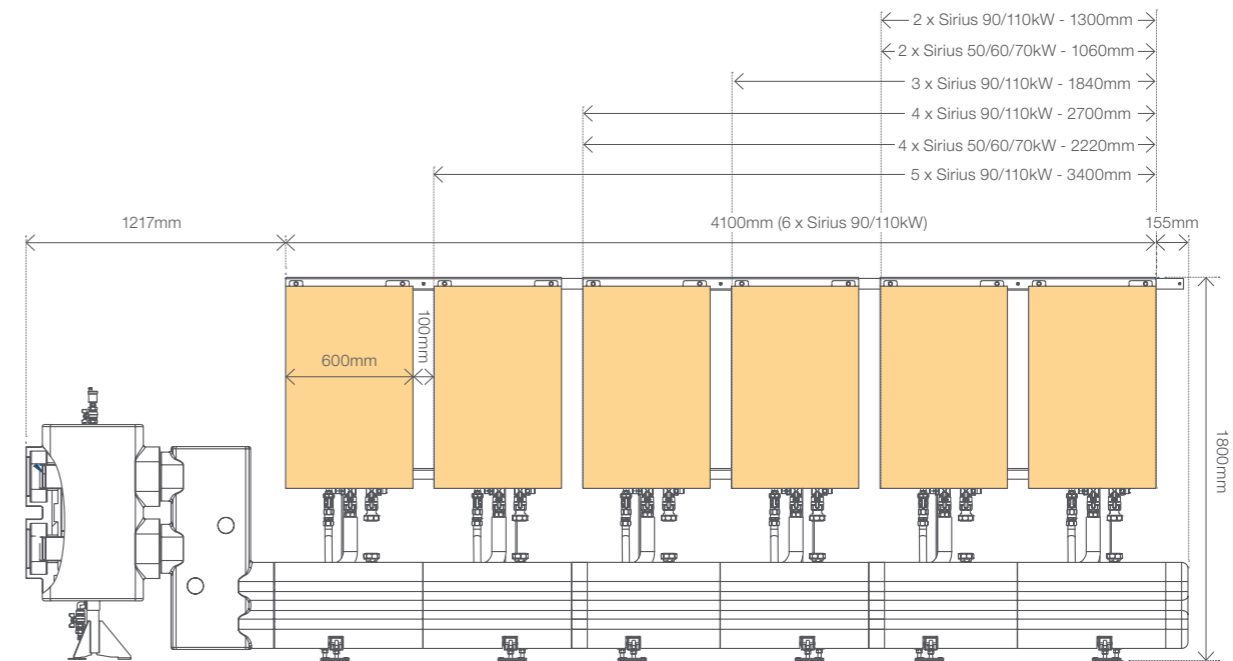
Benefits

- 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
- Quick, safe, reliable assembly
- Robust, durable flow, return and gas headers
- Protects boiler components by ensuring clean system and water and removes air, preventing noise
- 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 trained engineers.

Front elevation



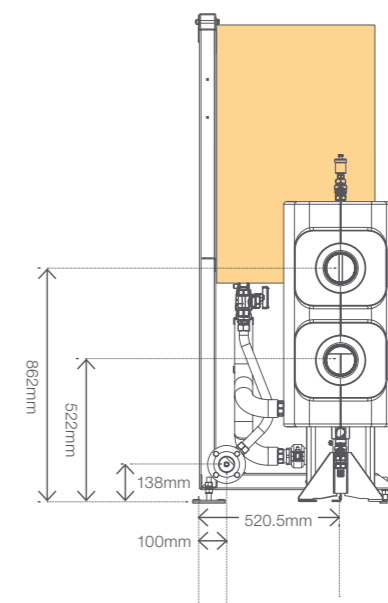
Kit components

All cascade frame kits come with the below items as standard:

- Floor standing boiler frame
- Flow / return pipework headers
- Gas pipework header
- Isolation valve kit for flow / return
- Gas isolation valve kit
- Grundfos primary loop pumps (controlled by boilers)
- Prefabricated push fit - pipework insulation
- Connection kit to low loss header*
- Low loss header*

*subject to package option selected

Side elevation



In-line configurations

Part numbers / No. of boilers (including low loss header*)

	2	3	4	5	6
Sirius 50kW	5141060	5141061	5141062	-	-
Sirius 60kW	5141060	5141061	5141062	-	-
Sirius 70kW	5141060	5141061	5141062	-	-
Sirius 90kW	5141064	5141065	5141066	5141067	5141068
Sirius 110kW	5141064	5141065	5141066	5141067	5141068

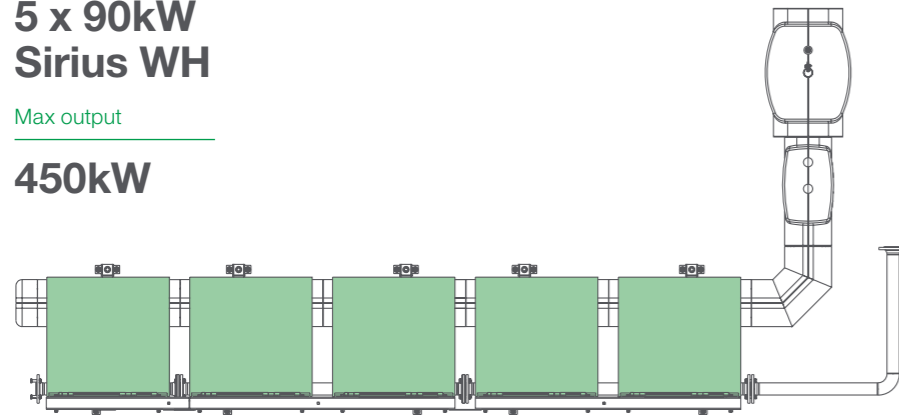
*Also available without low loss headers - contact us for more details

Configuration

5 x 90kW Sirius WH

Max output

450kW



Corner group configurations

Part numbers / No. of boilers (including low loss header*)

Inc. corner piece(s)	4	5	6 (3+3)	6 (2+4)	6 (2+2+2)
Sirius 50kW	5141063	-	-	-	-
Sirius 60kW	5141063	-	-	-	-
Sirius 70kW	5141063	-	-	-	-
Sirius 90kW	5141069	5141070	5141071	5141072	5141073
Sirius 110kW	5141069	5141070	5141071	5141072	5141073

*Also available without low loss headers - contact us for more details

Configuration

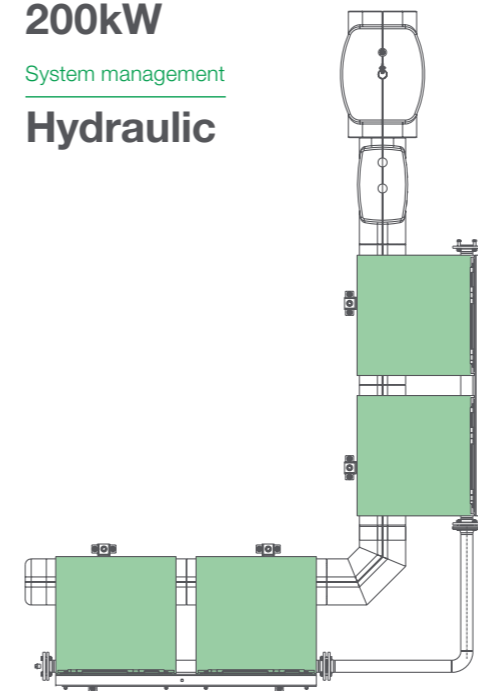
4 x 50kW Sirius WH

Max output

200kW

System management

Hydraulic



Configuration

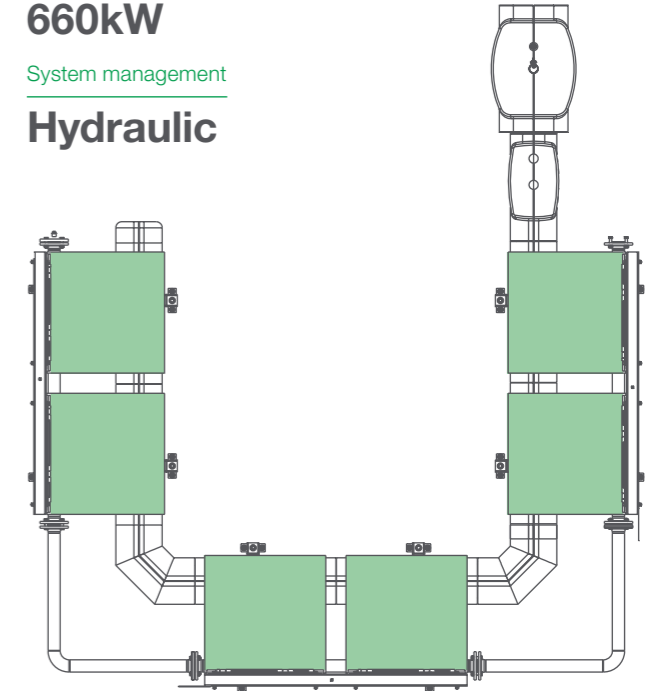
6 x 110kW Sirius WH

Max output

660kW

System management

Hydraulic

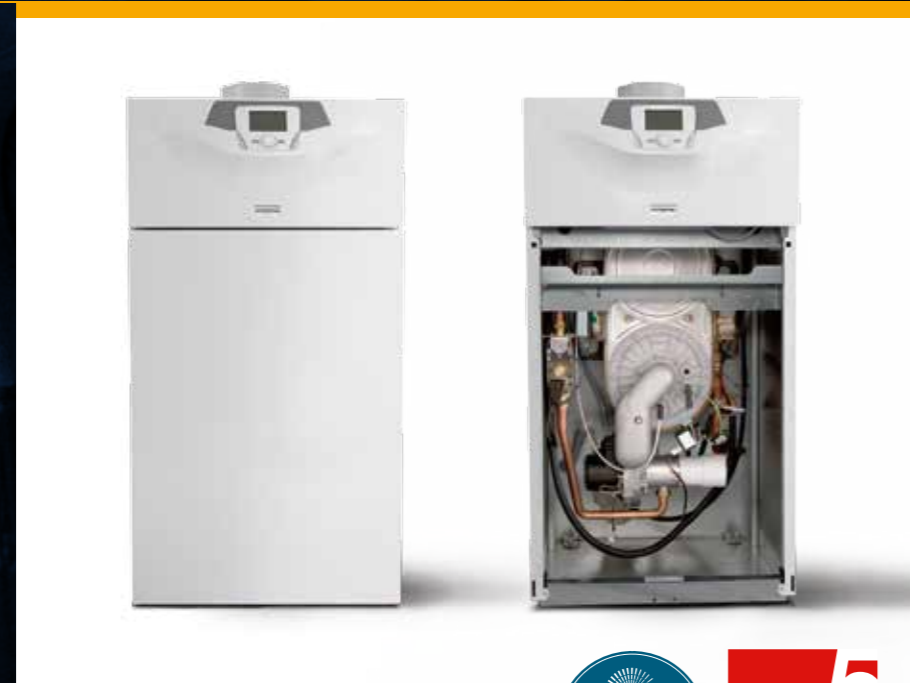


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Sirius FS

50-110kW
Floor standing condensing boiler



Sirius FS 50-110kW

Particularly suitable for replacement projects such as large domestic properties and small commercial premises, and for medium sized applications that require up to 440kW.

Single boiler outputs

50kW to 110kW

Gross seasonal efficiency

96.6%

Modulation ratio

9:1

Cascade output

Up to 440kW

Off mains gas

LPG option available

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

Outputs of 50kW, 70kW, 90kW and 110kW for single boilers, and up to 440kW when used with cascade pipework kits

Efficiency up to 96.6%

Stainless steel heat exchanger

9:1 modulation ratio

Five year parts and labour warranty*

Room sealed flue

Integral low loss header option

0-10 V connections as an available option

Optional commissioning by Potterton Commercial engineers and service plans are available

Compatible with renewables

Benefits

Suitable for a wide range of properties, from large domestic to medium sized commercial premises

Makes maximum use of the energy it uses, making it very cost effective

Designed for maximum combustion performance and energy efficiency

Extremely energy efficient, saving money and reducing carbon

For complete peace of mind

Can be used as a replacement for boilers in living spaces

Easy to install and looks professional

For easy BMS interface

We will provide on-going support for your boiler

The controls can be programmed to work with solar thermal, biomass and buffer tanks

Optional controls

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

Control type

Sales code

Wired remote control

5140905

DHW temperature sensor

5104701

Extension module

5140909

Flow temperature sensor

5103867

BM bus communication module

5140908

Remote zone controller kit

5140910

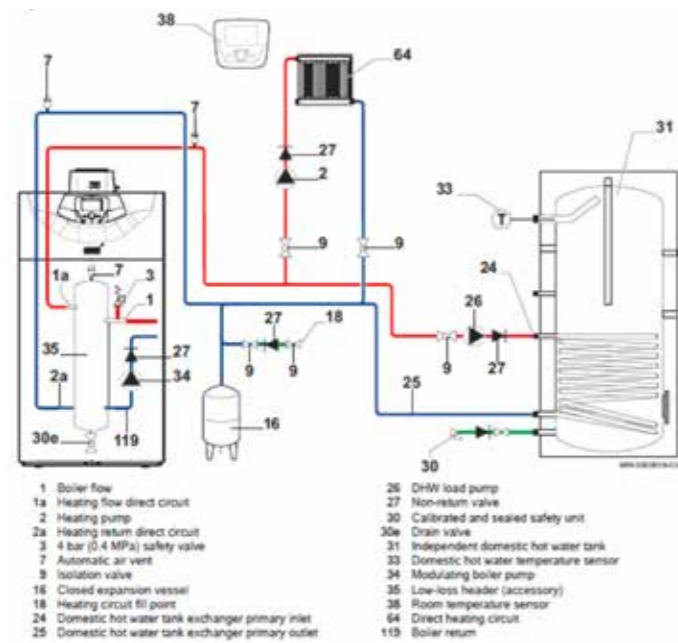
LPG conversion kit

5140911 - FS50
5140913 - FS70
5140914 - FS90
5140915 - FS110

System requirements

All installations should comply with all relevant codes of practice, British Standards and current Building Regulations. The maximum efficiency of the Sirius FS can be achieved when it is installed on a fully condensing system with suitable distribution design temperatures.

Typical heating system layout

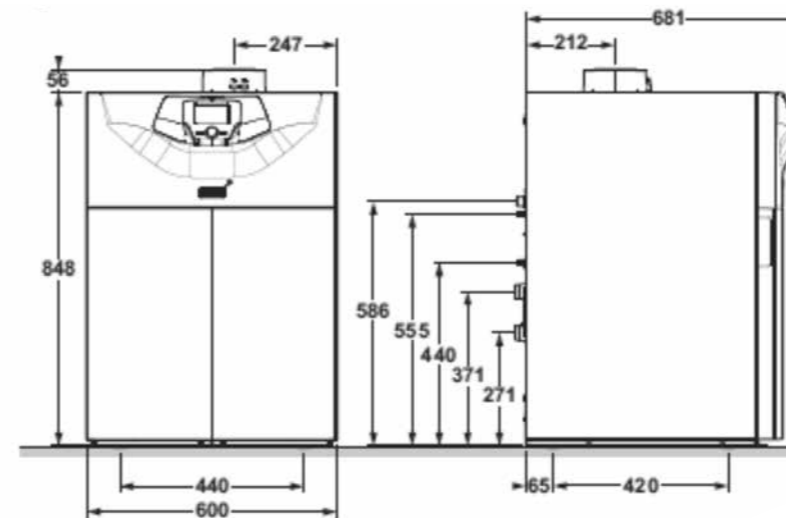


Weather compensated systems

The outside sensor will dictate the heating flow temperature to match the heating demand of the building (if the heating curve is correctly selected). The optional room control will shut down the boiler(s) if the building meets the set-point temperature. It also provides optimum start/stop and night set-back for the heating circuits.

Dimensions

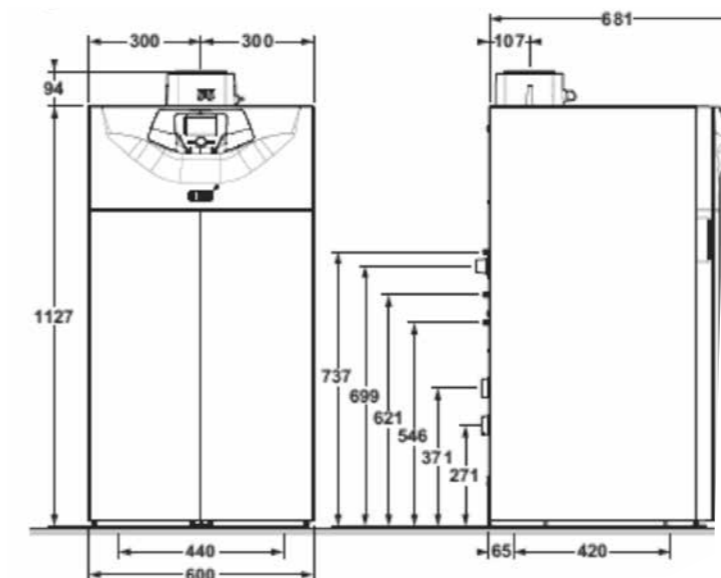
Sirius FS 50-70



Front View 50 - 70

Side View 50 - 70

Sirius FS 90-110



Front View 90 - 110

Side View 90 - 110

Technical specification

			Sirius FS 50	Sirius FS 70	Sirius FS 90	Sirius FS 110
Performance						
	Fuel Type					
Output @ 80/60°C	NG kW		45.1	65.1	85.1	102
Output @ 50/30°C	NG kW		48.6	70.3	92.2	110.2
Input (Gross) Maximum	NG kW		51.4	74.3	97	116.4
Output @ 80/60°C	LPG kW		45.1	65.1	85.1	102
Output @ 50/30°C	LPG kW		48.6	70.3	92.2	110.2
Input (LPG) Maximum	LPG kW		51.4	74.3	97	116.4
Efficiency						
	Value (%)					
Efficiency @ 80 / 60°C - 100% Load	% Gross		87.8	87.6	87.7	87.6
Efficiency @ 30% Load	% Gross		97.1	96.8	96.9	96.8
Current Building Regulations - Part L2 Seasonal Efficiency	% Gross		96.6	96.4	96.8	96.4
Gas						
Gas Consumption (Natural Gas)	m ³ /h		4.9	7.07	9.25	11.1
Gas Consumption (LPG)	Kg/h		3.59	5.19	6.79	8.15
Inlet Gas Pressure (Natural Gas - G20)	m/bar			20		
Inlet Gas Pressure (LPG - G31)	m/bar			37		
Gas Connection Size	inch		¾	¾	1	1
Gas Connection Type				Male Thread		
Flue						
Flue Gas Volume at 80/60°C (NG)	m ³ /h at STP		67.6	97.7	127.6	147.2
Flue Gas Volume at 50/30°C (NG)	m ³ /h at STP		62.8	90.5	117.7	136.2
Flue Gas Volume at 80/60°C (LPG)	m ³ /h at STP		61.5	88.9	114.1	139.3
Flue Gas Volume at 50/30°C (LPG)	m ³ /h at STP		57.1	82.4	105.2	128.9
Max Flue Gas Pressure @ Outlet (B23)	pa			200		

		Sirius FS 50	Sirius FS 70	Sirius FS 90	Sirius FS 110
Hydraulic					
Water Flow Rate @ 15°C ΔT	l/s	0.72	1.04	1.36	1.63
Water Flow Rate @ 20°C ΔT	l/s	0.54	0.78	1.02	1.22
Hydraulic Resistance @ 15°C ΔT	kPa	94	52	40	40
Hydraulic Resistance @ 20°C ΔT	kPa	54	32	22	22
Water Content	litres	3	5	9	10
Flow & Return Connection Size	mm	1	1	1½	1½
Flow & Return Connection Type			Male Thread		
Flue Connection Size	mm	80/125	80/125	110/160 (100/150)	110/160 (100/150)
Maximum Boiler Operating Pressure	bar		4		
Minimum Boiler Operating Pressure	bar		1		
Maximum Flow Temperature	°C		80		
General					
Appliance Dry Weight	Kg	60	70	104	109
Dimension W x D x H	mm	600 x 681 x 905	600 x 681 x 905	600 x 681 x 1222	600 x 681 x 1222
NOx Level (Dry @ 0% O ₂)	mg/kWh	29.8	34.8	39.5	24.7
CO ₂ Content – Natural Gas	%	8.5 - 9	8.5 - 9	8.5 - 9	9 - 9.2
CO ₂ Content – LPG	%	9.5 - 10	9.5 - 10	9.9 - 10	9.5 - 10
High Level Ventilation (BS 6644)	cm ²	93	134	175	210
Low Level Ventilation (BS 6644)	cm ²	185	268	350	418
Electrical					
Power consumption	W	100	117	146	185
Nominal Supply Voltage	V/Hz		230 v 1 Ph 50 Hz		



Flue options











Potterton Commercial offers a comprehensive choice of flues and accessories for Sirius FS 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.

Flue

Boiler	Flue size	Number of bends 87°			
		1	2	3	4
FS50	Ø 80/125	9m	8m	7m	6m
FS70	Ø 80/125	9m	8m	7m	6m
FS90	Ø 100/150	9m	8m	7m	6m
FS110	Ø 100/150	9m	8m	7m	6m

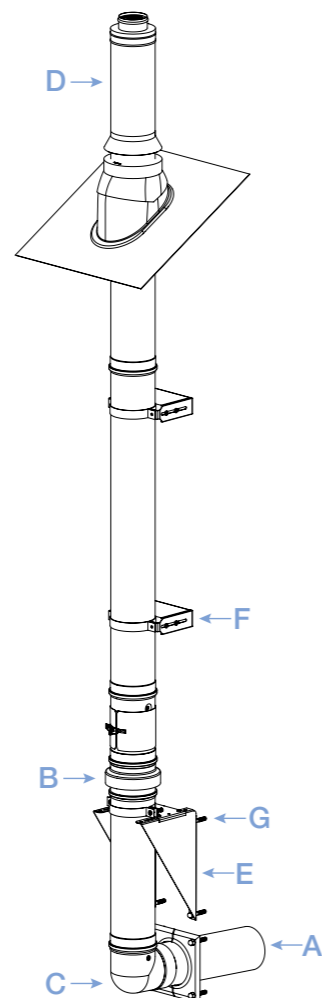
Common concentric flue components

Model	Sales code	Flue size	Description	
FS 50-70	5136146	Ø80/125	Horizontal concentric flue. Inc: terminal and wall plates	
FS 90-110	5136170	Ø100/150		
FS 50-70	5136147	Ø80/125	Vertical concentric flue kit	
FS 90-110	5136171	Ø100/150		
FS 50-70	5136148	Ø80/125	1 metre concentric extension	
FS 90-110	5136159	Ø100/150		
FS 50-70	5136149	Ø80/125	0.5 metre concentric extension	
FS 90-110	5136160	Ø100/150		
FS 50-70	5136151	Ø80/125	87° Concentric elbow	
FS 90-110	5136162	Ø100/150		
FS 50-70	5136150	Ø 80/125	45° Concentric elbow	
FS 90-110	5136161	Ø100/150		
FS 50-70	5136152	Ø 80/125	Wall stand off brackets	
FS 90-110	5136163	Ø100/150		
FS 50-70	E105	Ø80/125	Terminal cage guard	
FS 90-110	E630	Ø100/150		
FS 50-70	E065	Ø80/125	Flat roof flashing	
FS 90-110	E207	Ø100/150		
FS 50-70	E066	Ø80/125	Pitched roof flashing	
FS 90-110	E208	Ø100/150		

External flue

External wall starter kit

- A Through wall piece with bottom elbow
- B Air intake
- C 80/125-100/150 adaptor (Sirius FS 50kW & 70kW)
- D 100/150 flue terminal
- E Bottom wall support
- F Wall brackets x2
- G Fixings x3



Model	FS50	FS70	FS90	FS110
Starter kit	5138541	5138541	5138542	5138542
1 metre extension	5138545	5138545	5138545	5138545
0.5 metre extension	5138546	5138546	5138546	5138546
45° elbow (x2)	5138547	5138547	5138547	5138547
Inspection tee	5138548	5138548	5138548	5138548

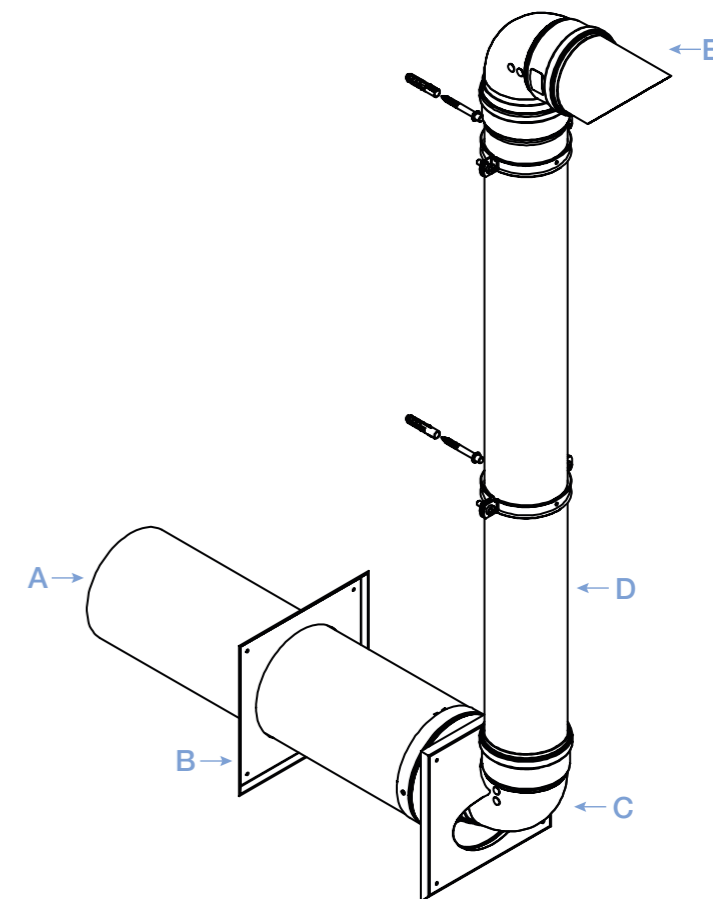
Plume management kit

Flue size 80/125 (Sirius FS 50kW and 70kW)

- 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

Flue size 100/150 (Sirius FS 90kW and 110kW)

- 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



Model	FS50	FS70	FS90	FS110
Starter Kit	5136902	5136902	5138512	5138512
1 metre extension - 80	5138537	5138537	-	-
1 metre extension - 100	-	-	5138540	5138540
45° elbow - 80	5138536	5138536	-	-
45° elbow - 100	-	-	5138539	5138539
90° elbow - 80	5138535	5138535	-	-
90° elbow - 100	-	-	5138538	5138538

Floor standing cascade pipework kits

The Sirius FS cascade pipework kit accommodates up to four boilers, delivering a maximum output of 440kW, spreading heat demand across multiple boilers.

Number of boilers	Maximum output	Modulation ratio
Up to 4	Up to 440kW	9:1 per boiler

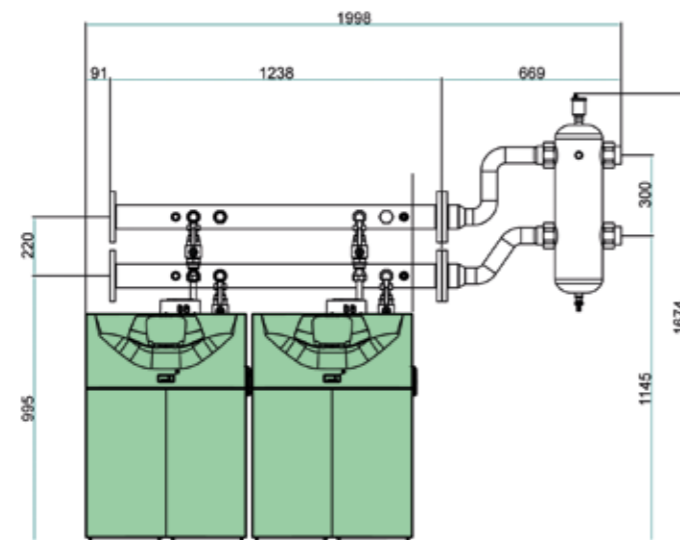
Features

- Hydraulically sized flow and return pre-fabricated cascade pipework
- Class A primary circulator pumps (per boiler)
- Optional commissioning service

Benefits

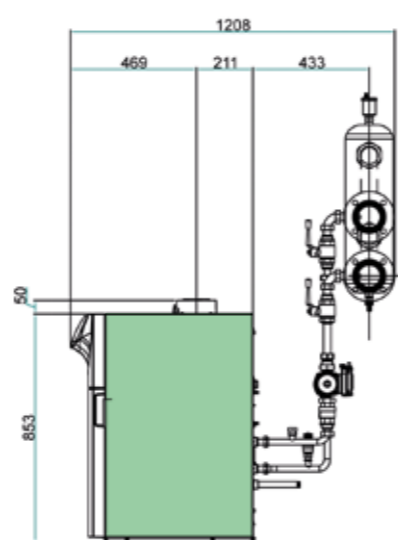
- Matches the designed boiler flow rate and reduces installation time
- ErP ready
- Provided by our national team of Gas Safe registered, trained engineers

Front elevation



For illustration purposes only.

Side elevation



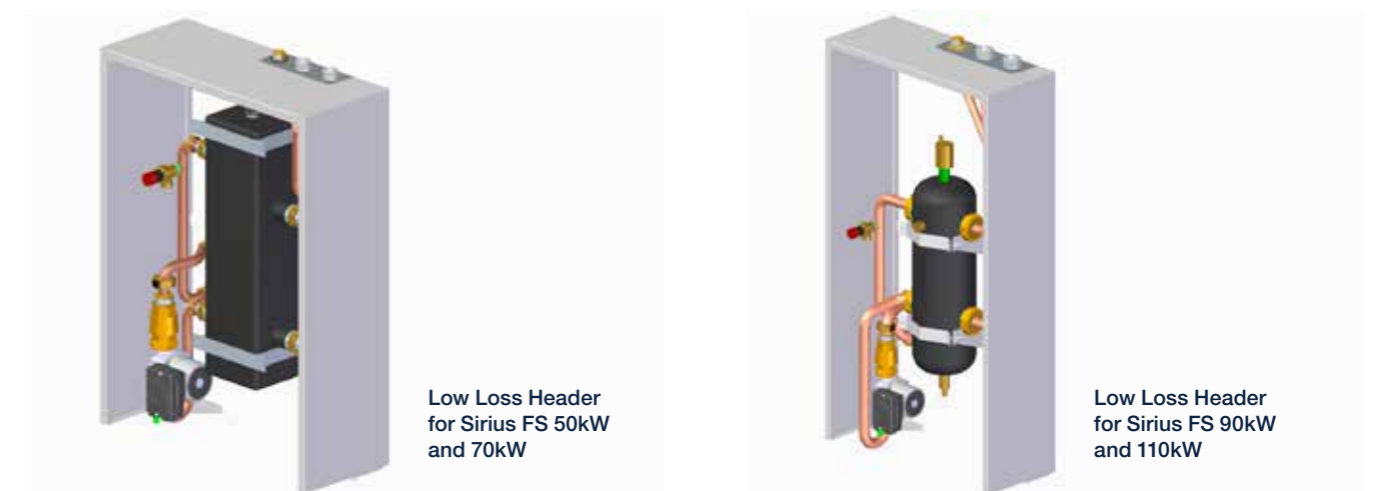
Nationwide commissioning service

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 trained engineers.

Low loss header

Fitting a low loss header allows the boiler to maintain the correct flow of water constantly, to ensure maximum reliability and efficiency.

Potterton Commercial low loss headers are available for use with the Sirius FS 50kW – 110kW models. These accessories are easily integrated into the boiler design. They are supplied with boiler case extension panels which conceal the low loss header arrangement.



Model	FS50	FS70	FS90	FS110
Connection Set Cascade 50/70kW	5142186	5142186	-	-
Connection Set Cascade 90/110kW	-	-	5142187	5142187
Low Loss Set 50/70kW	5142184	5142184	-	-
Low Loss Set 90/110kW	-	-	5142185	5142185

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Sirius FS

130-160kW
Floor standing condensing boiler



Sirius FS 130-160kW

Particularly suitable for replacement projects the Sirius FS floor standing condensing boiler is available in outputs of 130kW and 160kW as a single boiler, and up to 640kW using a cascade frame.

Single boiler outputs

130kW and 160kW

Gross seasonal efficiency

96%

Cascade output

Up to 640kW

Off mains gas

LPG Compatible

Applications

Large domestic properties, small commercial premises and for medium sized applications.

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

Outputs of 130kW and 160kW single boilers, and up to 640kW when used with the cascade

Efficiency up to 96%

Stainless steel heat exchanger

Very compact design

0-10 V connections as standard

Compatible with renewables

Benefits

Suitable for a wide range of properties, from large domestic to medium sized commercial premises

Makes maximum use of the energy it uses, making it very cost effective

Designed for maximum combustion performance and energy efficiency

Saves space

For easy BMS interface

The controls can be programmed to work with solar thermal, biomass and buffer tanks

Cascade controls

Control type

RVA47 Sequence controller

OCI420 Bus module

QAZ21 DHW sensor

QAA50 Room thermostat

RVA46 Zone control

RVA Control housing

Sales code

5116433

5116431

5116437

5116427

5116432

5116438

Optional controls

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

Control type

Remote digital thermostat

Remote room thermostat

Immersion sensor

Clip-in interface

Sales code

5116426

5116429

5116436

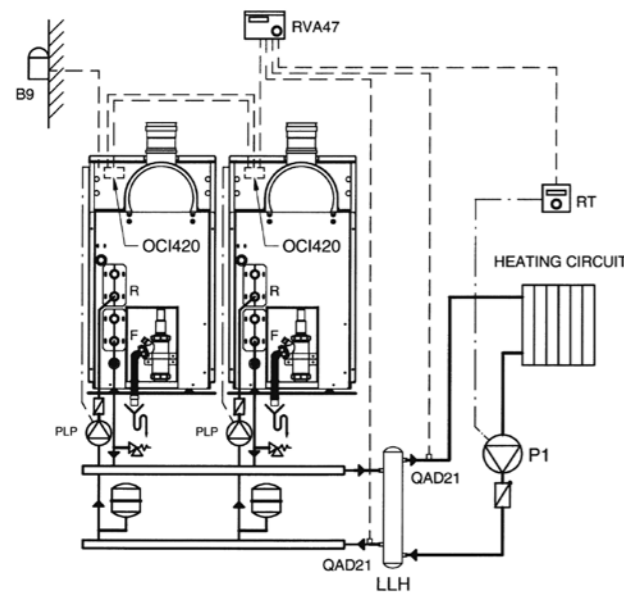
5116430

System requirements

All installations should comply with all relevant codes of practice, British Standards and current Building Regulations. The maximum efficiency of the Sirius FS can be achieved when it is installed on a fully condensing system with suitable distribution design temperatures.

Typical heating system layout

Modular option for two or more boilers

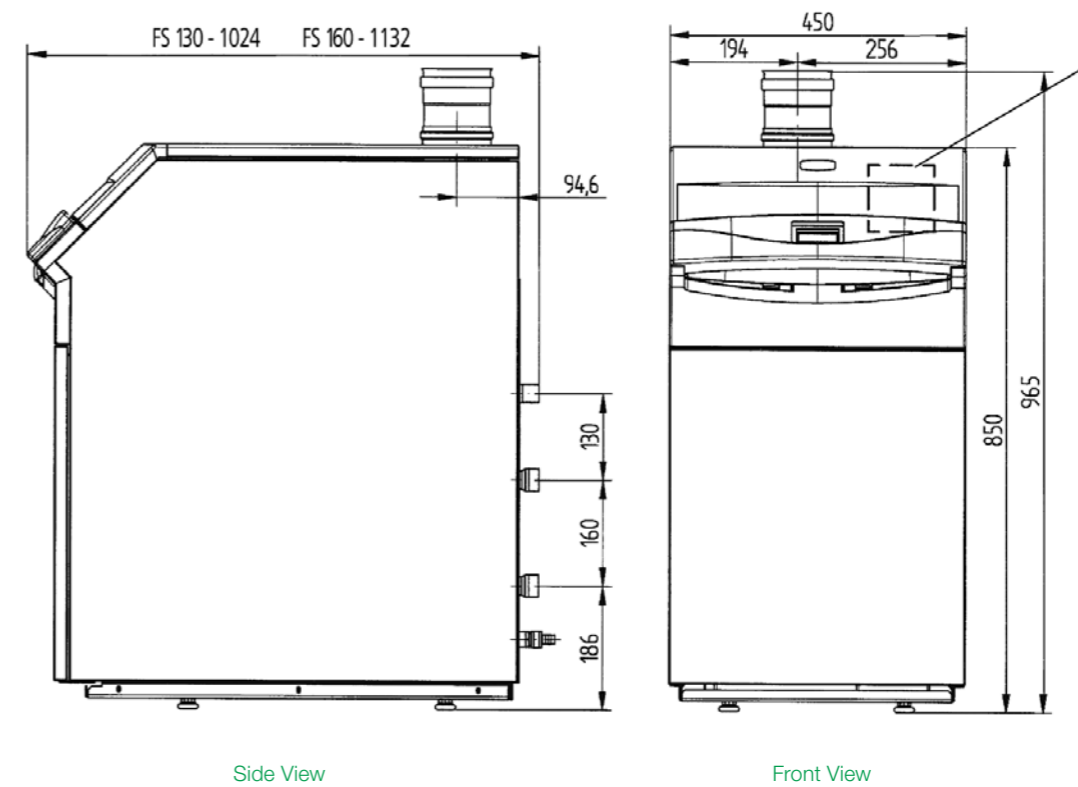


Weather compensated systems

The outside sensor will dictate the heating flow temperature to match the heating demand of the building (if the heating curve is correctly selected). The overriding room control will shut down the boiler(s) if the building meets the set-point temperature. It also provides optimum start/stop and night set-back for the heating circuits.

Dimensions

Sirius FS 130-160



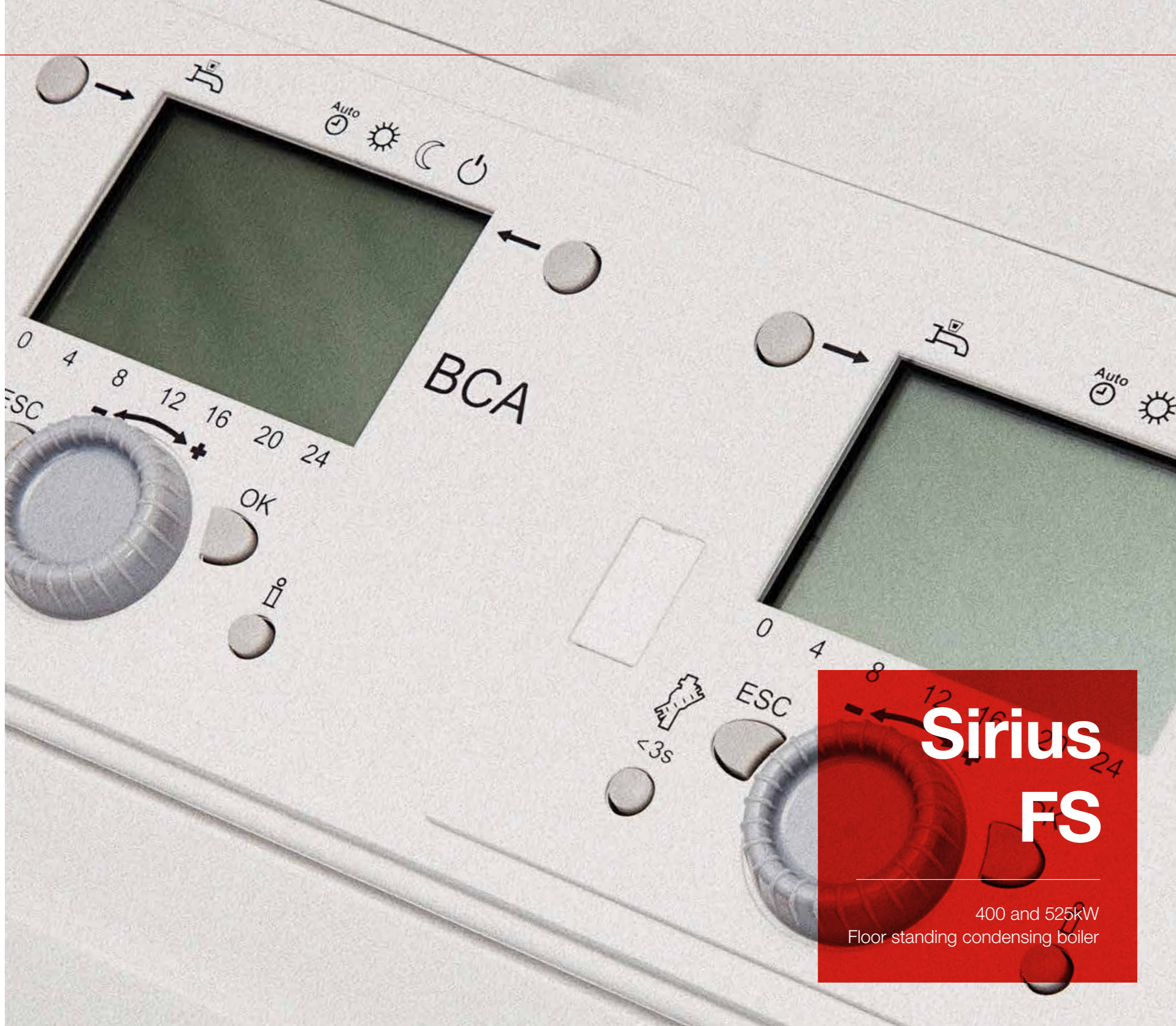
Model	FS130	FS160
Cascade Pipework Kit	5116509	-
Cascade Pipework Kit	-	5116510

Cascade Pipework Kit includes: Connection pipework, Primary Pump, Manifold header

Technical specification

		Sirius FS 130	Sirius FS 160
Heating performance			
Output 80/60°C Max (NG)	kW	119.9	149.9
Output 50/30°C Max (NG)	kW	129.2	161.8
Input (Gross) (NG)	kW	136.6	170.7
Output 80/60°C Max (LPG)	kW	119.9	149.9
Output 50/30°C Max (LPG)	kW	129.2	161.8
Input (Gross) (LPG)	kW	136.6	170.7
Efficiency @ 80/60°C - 100% load	% Gross	87.8	87.8
Efficiency @ 50/30°C - 30% load	% Net	96.9	96.6
Seasonal Efficiency - Part L2	% Gross	96.5	96.3
Gas Consumption (Natural Gas)	m ³ /h	13.80	16.35
Gas Consumption (LPG)	Kg/h	9.56	11.95
Inlet Gas Pressure (NG - G20)	mbar	20	20
Inlet Gas Pressure (LPG - G31)	mbar	37	37
Flue			
Flue Gas Volume at 80/60°C (NG)	m ³ /h at STP	179.7	224.6
Flue Gas Volume at 50/30°C (NG)	m ³ /h at STP	166.3	208
Flue Gas Volume at 80/60°C (LPG)	m ³ /h at STP	156.6	195.7
Flue Gas Volume at 50/30°C (LPG)	m ³ /h at STP	145.4	181.3
Max Flue Gas Pressure @ Outlet	pa	115	90
CO ₂ Content - Natural Gas	%	8.4 - 9.7	8.4 - 8.7
CO ₂ Content - LPG	%	10.2	10.2
Flue Gas Temperatures @ 80/60°C	°C	77	75
NOx Level (Dry @ 0% O ₂)	mg/kWh	32.2	34.8
High Level Ventilation (BS 6644)	cm ²	246	308
Low Level Ventilation (BS 6644)	cm ²	492	615

		Sirius FS 130	Sirius FS 160
Water			
Water Flow Rate @ 20°C ΔT	l/s	1.43	1.79
Water Flow Rate @ 15°C ΔT	l/s	1.91	2.39
Hydraulic Resistance @ 20°C ΔT	kPa	31.38	31.38
Hydraulic Resistance @ 15°C ΔT	kPa	22.56	19.61
Water Content	litres	23.3	25.3
Maximum Pressure	bar	4	4
Minimum Operating Pressure	bar	1	1
Maximum Operating Pressure	°C	85	85
Water			
Water Flow Rate @ 20°C ΔT	l/s	1.43	1.79
Water Flow Rate @ 15°C ΔT	l/s	1.91	2.39
Hydraulic Resistance @ 20°C ΔT	kPa	22.56	19.61
Hydraulic Resistance @ 15°C ΔT	kPa	31.38	31.38
Water Content	litres	23.3	25.3
Maximum Pressure	bar	4	4
Minimum Operating Pressure	bar	1	1
Maximum Operating Pressure	°C	85	85
Condensate Outlet Connection	mm	Ø18	Ø18
Flue Connection Size	mm	Ø100mm internal	Ø100mm internal
Electrical			
Electrical Connection	V/Hz	230/50	230/50
Maximum Absorbed Power - Full Load	W	135	235
Absorbed Power - Stand by	W	6.3	6.3



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Sirius FS

400 and 525kW
Floor standing condensing boiler



5
FIVE
YEAR
WARRANTY*

Sirius FS

The Sirius FS floor standing condensing boiler provides an energy efficient, cost effective heating solution for large commercial buildings, such as schools, hotels, nursing homes and leisure facilities. Both models benefit from the latest dual burner technology, which delivers an industry-leading modulation ratio of 10:1.

Single boiler outputs

**400kW and
525kW**

Modulation ratio

10:1

Applications

Large commercial premises and packaged plant solutions.

Commissioning

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

Service plans

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

Gross seasonal efficiency

97%

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

Features and benefits

Features

Stainless steel heat exchanger

Very compact design

2 burner combustion system

0-10 V connections as standard

Free commissioning by Potterton Commercial engineers

Service plans are available

The controls can be programmed to work with solar thermal, biomass and buffer tanks

Benefits

Designed for maximum combustion performance and safety

Easy to fit in confined spaces

Spreads the heat demand across two burners, reducing wear and tear on components

For easy BMS interface

Ensures optimum performance, efficiency and savings

On-going support, whenever you need it

Sustainable, energy efficient, solution for a wide range of applications

Optional controls

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

Control Type

Sales Code

Remote room thermostat

5117803

Programmable room thermostat

5117802

DHW temperature sensor

5104701

Extension module

5138513

Flow temperature sensor

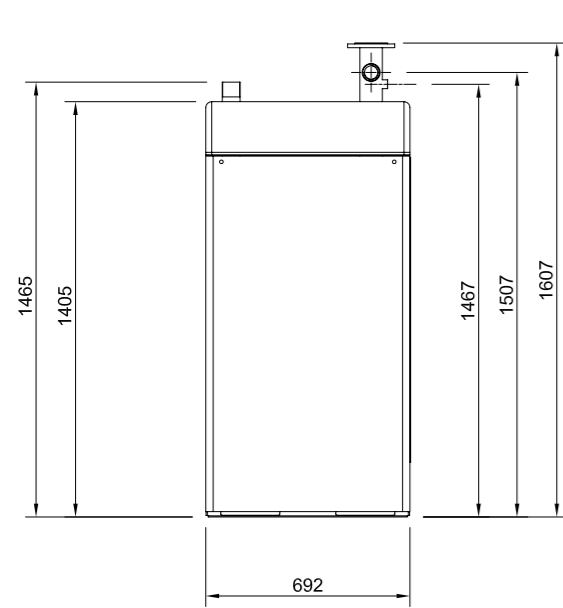
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BM bus communication module

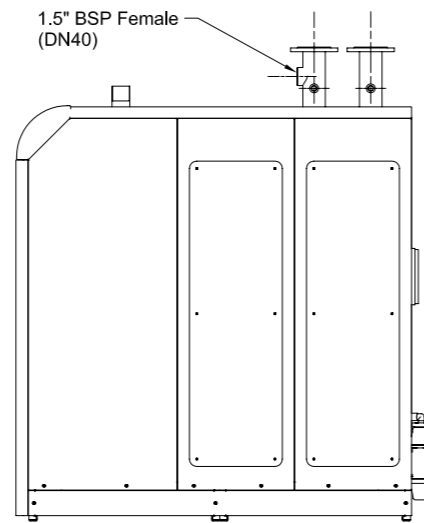
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Dimensions

Sirius FS 400



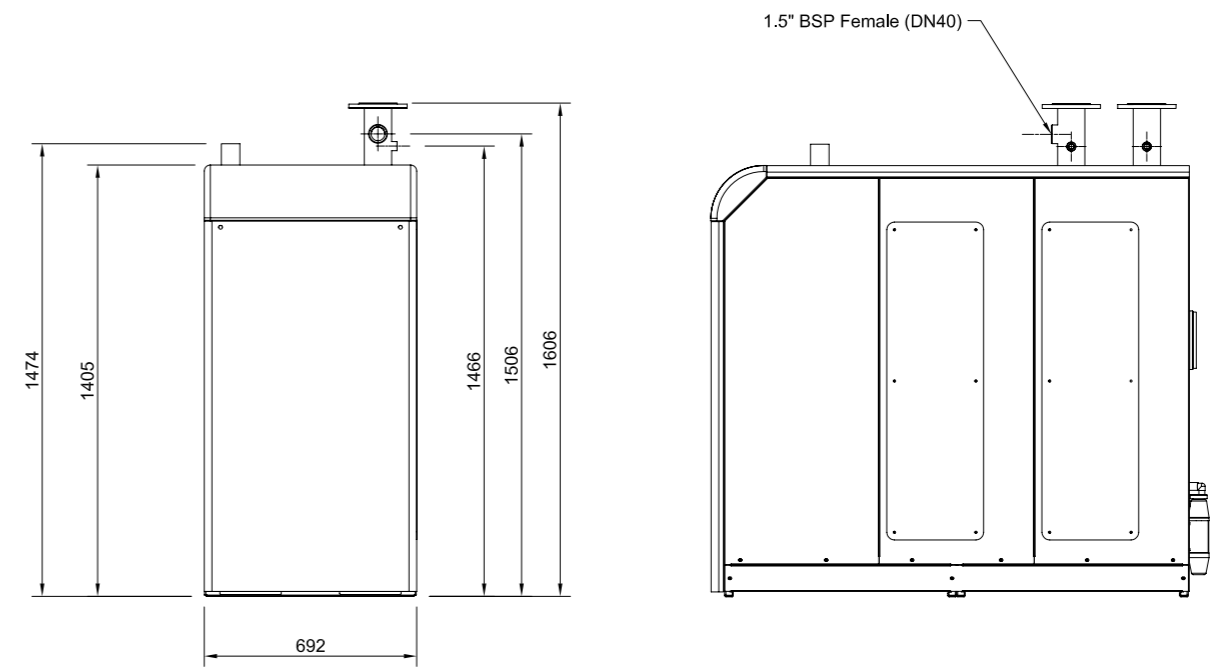
Front View



Side View

Dimensions

Sirius FS 525



Front View

Side View

		Sirius FS 400	Sirius FS 525
Height	mm	1613	1620
Width	mm	692	692
Depth	mm	1405	1620
Service clearance, rear	mm	600	600
Service clearance, right & top	mm	600	600
Service clearance, left	mm	400	400
Service clearance, front	mm	800	800

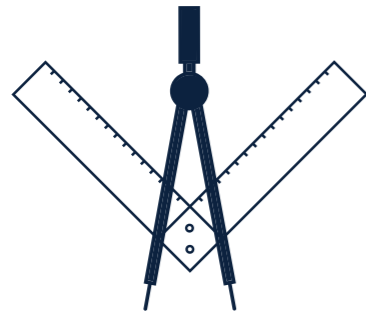
Technical specification

			Sirius FS 400	Sirius FS 525
Performance		Fuel Type		
Output @ 80 / 60°C	NG	kW	380	475
Output @ 50 / 30°C	NG	kW	401	527
Input (Gross) Maximum	NG	kW	421.7	554.9
Efficiency		Value (%)		
Efficiency @ 80 / 60°C - 100% Load	% Gross		96.2	69.4
Efficiency @ 50 / 30°C - 30% Load	% Gross		105.5	105.4
Current Building Regulations - Part L2 Seasonal Efficiency	% Gross		97	97.3
Gas				
Gas Consumption (Natural Gas)	m ³ /h		3.5-40.0	4.5 - 52.4
Inlet Gas Pressure (Natural Gas - G20)	m/bar		18-20	
Gas Connection Size	inch		2	
Gas Connection Type	BSP		Male Threaded	
Flue				
Flue Gas Volume @ 80/60°C (NG)	m ³ /h@STP		673	875
Flue Gas Volume @ 50/30°C (NG)	m ³ /h@STP			
Maximum Flue Gas Pressure @ Outlet	m/bar		200	250
Minimum Flue Gas Pressure @ Outlet	m/bar			

		Sirius FS 400	Sirius FS 525
Hydraulic			
Water Flow Rate @ 15°C ΔT	l/s	6.4	8.4
Water Flow Rate @ 20°C ΔT	l/s	4.8	6.3
Hydraulic Resistance @ 15°C ΔT	kPa	73	66
Hydraulic Resistance @ 20°C ΔT	kPa	42	38
Water Content	Litres	30	43
Flow & Return Connection Type	Flanged	DN65 PN6	DN80 PN6
Flue Connection Size	mm	180	180
Maximum Boiler Operating Pressure	bar	6	6
Minimum Boiler Operating Pressure	bar	1	1
Maximum Flow Temperature	°C	90	90
General			
Appliance Dry Weight	Kg	359	424
Dimension W x D x H	mm	590x1341x1405	590x1558x1405
NOx Level (Dry @ 0% O ₂)	mg/kWh	26 (45)	26 (45)
CO ₂ Content – Natural Gas	%	9.0 (8.7)	9
Noise Levels @ 1 metre from unit	dB(A)	59	65
High Level Ventilation (BS 6644)	cm ²	760	1,000
Low Level Ventilation (BS 6644)	cm ²	1,520	2,000
Electrical			
Power Consumption (with pump)	W	253	322
Nominal Supply Voltage	V/Hz	230/50	

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 Part L2a and b of the Building Regulations 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



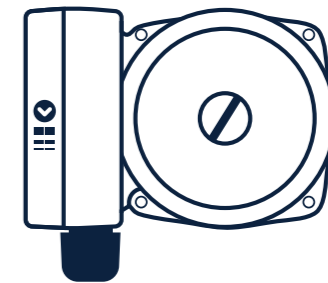
Specification and sales support

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. They 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 part name, brand or Gas Council number.

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