

P Series Cast Iron Boiler Range

Controlling your working environment

HEATING • VENTILATION • INTEGRITY



Product Overview

P series cast iron boilers are essentially designed for low temperature hot water applications and are suitable for open vented, sealed or pressurised systems up to the limitations of the stated maximum working pressures and temperatures. The boilers are unsuitable for the direct generation of domestic hot water and for such applications should be installed in conjunction with indirect cylinders or calorifiers.

Boiler can be supplied 'less burner' or fitted with a fully matched Riello pressure jet oil and forced draught gas burners. Oil heaters are arranged for operation on Class D light distillate 35 second gas oil whilst gas fired heaters are supplied configured for natural gas (G20). Alternative dual fuel, lpg propane (G31), 28 second oil or liquid biofuel firing available to order.

Boiler sections are cast from EN GJL 200 special alloy to provide efficient heat transfer with high resistance to corrosion and are configured to provide a three pass heat exchanger. Sections are guaranteed against manufacturing defect for five years.

Each boiler is supplied complete with a casing and a control console which incorporates on/off switch, limit thermostat trip and burner lockout indicators. A burner run lamp, temperature setting knob and temperature indicator are also fitted as standard.

Depending on model and size boilers can be supplied fully assembled or in sections where access to boiler rooms is restricted.*

All boilers are CE approved and have seasonal efficiencies which exceed the requirements of the Non-domestic compliance guide enabling conformity to Building Regulations Part L2B.

PG Series

- Five Model Range
- Outputs 28-66kW
- Fully Cased
- Supplied Ready Assembled
- Side Hinged Access Door



PRS Series

- Five Model Range
- Outputs 76-145kW
- Cased
- Supplied Ready Assembled



PON Series

- Seven Model Range
- Outputs 163-355kW
- Cased
- Supplied For On Site Assembly*

* Note that only boilers assembled by a Powrmatic approved company will be covered by our standard guarantee

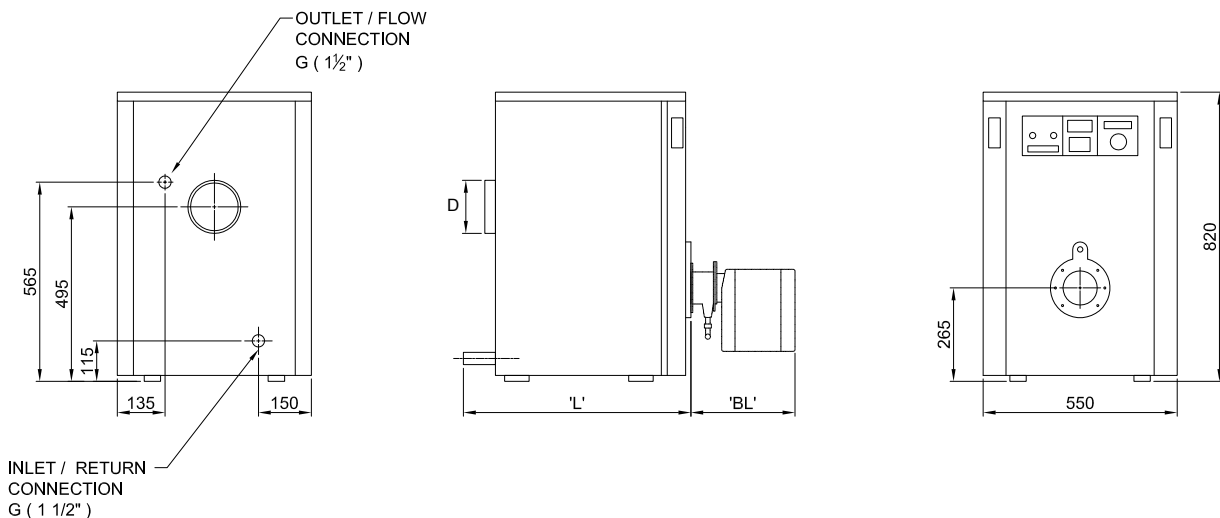
Duties & Dimensions - PG Series

Model			03	04	05	06	07	
Output	kW		29	38	47	56	66	
Supply Configuration			Assembled & Cased					
Operating Temperatures	Maximum	°C	90					
	Control Range	°C	30-90					
Hydraulic Data	Water Content	litres	15	18	21	24	27	
	Max Operating Pressure	bar	3					
	Connections	Inlet	bsp/Rc	G 1½"				
		Outlet	bsp/Rc	G 1½"				
Burner Data	Oil (35 sec)	Burner Type	Riello	R40 G3 TC	R40 G5 TC	R40 G5 TC	R40 G10 TC	R40 G10 TC
		Consumption	l/h	3.1	4.0	5.0	6.0	7.0
		Connection	bsp/Rc	3/8				
	Gas (G20)	Burner Type	Riello	R40 GS5 TC	R40 GS5 TC	R40 GS10 TC	R40 GS10 TC	R40 GS10 TC
		Minimum Inlet Pressure	mbar	17.5				
		Consumption	m³/h	3.4	4.2	5.3	6.4	7.5
		Connection	bsp/Rc	½"				
	LPG (Propane)	Burner Type	Riello	R40 GS5 TC	R40 GS5 TC	R40 GS10 TC	R40 GS10 TC	R40 GS10 TC
		Minimum Inlet Pressure	mbar	37.0				
		Consumption	m³/h	1.3	1.6	2.1	2.5	2.9
		Connection	bsp/Rc	½"				
	Electrics	v/ph/hz	230/1/50					
Installation Clearances	Front	mm	BL + 1000					
	Side	mm	400					
	Rear	mm	300					
Flue	mm Ø	125	125	150	150	150		
Nett Weight (Dry)	kg	143	175	212	245	278		

Notes:-

Fuel consumption and output figures based upon gross calorific values as -
 Class D light distillate fuel oil nett CV 36.28 MJ/l
 Natural gas (G20) nett CV 34.02 MJ/m³
 LPG Propane (G31) nett CV 95.65 MJ/m³

All models are configured on/off as standard - high/low burner optional.
 All boilers are supplied with a single wall flue adaptor, twin adaptors available as an option
 Installer guidance notes on rear page



Model			03	04	05	06	07
L Dimension			485	585	685	785	885
BL Dimension	(Oil) mm		236	236	236	261	261
	(Gas) mm		295	295	295	346	346
D Dimension (Flue)	mm		125	125	150	150	150

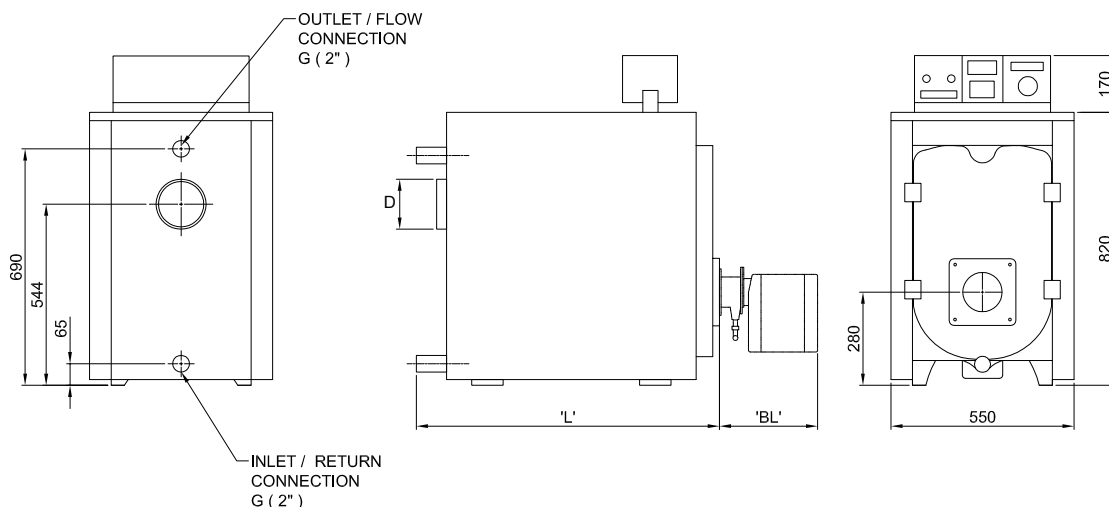
Duties & Dimensions - PRS Series

Model			05	06	07	08	09	
Output		kW	76	93	110	128	145	
Supply Configuration			Assembled & Cased					
Operating Temperatures	Maximum		°C					90
	Control Range		°C					30-90
Hydraulic Data	Water Content		litres	55	65	75	85	95
	Max Operating Pressure		bar	6				
	Connections	Inlet	bsp/Rc	G 2"				
		Outlet	bsp/Rc	G 2"				
Burner Data	Oil (35 sec)	Burner Type	Riello	R40 G20S TC	R40 G20S TC	R40 G20S TC	R40 G20S TC	RL34 MZ TC
		Consumption	l/h	8.1	10.0	11.9	13.7	15.6
		Connection	bsp/Rc	3/8				
	Gas (G20)	Burner Type	Riello	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC
		Minimum Inlet Pressure	mbar	17.5				
		Consumption	m³/h	8.7	10.7	12.7	14.6	16.6
		Connection	bsp/Rc	3/4	3/4	3/4	3/4	1
	LPG (Propane)	Burner Type	Riello	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC	R40 GS20 TC
		Minimum Inlet Pressure	mbar	37.0				
		Consumption	m³/h	3.1	3.8	4.5	5.2	5.9
Connection		bsp/Rc	3/4	3/4	3/4	3/4	1	
Electrics		v/ph/hz	230/1/50					
Installation Clearances	Front	mm	BL + 1000					
	Side	mm	450					
	Rear	mm	200					
Flue		mm Ø	150	150	175	175	175	
Nett Weight (Dry)		kg	289	334	381	429	474	

Notes:-

Fuel consumption and output figures based upon gross calorific values as -
 Class D light distillate fuel oil nett CV 36.28 MJ/l
 Natural gas (G20) nett CV 34.02 MJ/m3
 LPG Propane (G31) nett CV 95.65 MJ/m3

All models are configured on/off as standard - high/low burner optional.
 All boilers are supplied with a single wall flue adaptor, twin adaptors available as an option
 Installer guidance notes on rear page



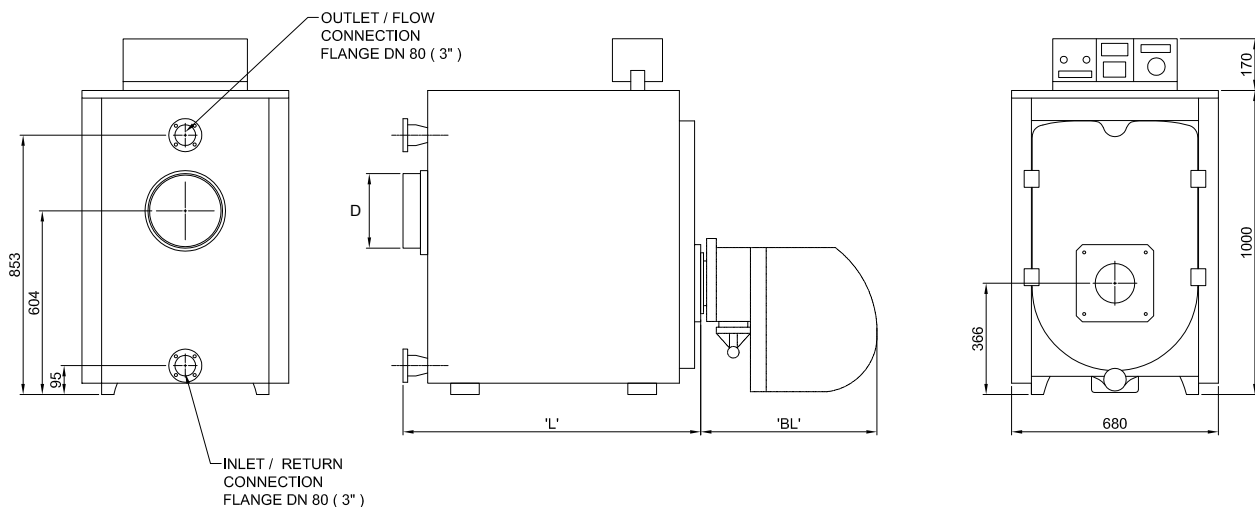
Model		05	06	07	08	09
L Dimension		800	922	1044	1166	1288
BL Dimension	(Oil) mm	295	295	295	295	295
	(Gas) mm	389	389	389	389	389
D Dimension (Flue)		mm	150	150	175	175

Duties & Dimensions - PON Series

Model			05	06	07	08	09	10	11	
Output	kW		163	195	227	259	291	323	355	
Supply Configuration			Unassembled & Uncased							
Operating Temperatures	Maximum	°C	90							
	Control Range	°C	30-90							
Hydraulic Data	Water Content	litres	77	93	109	125	141	157	173	
	Max Operating Pressure	bar	6							
	Connections	Inlet	bsp/Rc	DN 80 3"						
		Outlet	bsp/Rc	DN 80 3"						
Burner Data	Oil (35 Sec)	Burner Type	Riello	R40 G20S TC	RL34 MZ TC	RL34 MZ TC	RL34 MZ TC	RL34 MZ TC	RL44 MZ TC	RL44 MZ TC
		Consumption	l/h	17.6	20.9	24.4	27.9	31.4	34.8	38.2
		Connection	bsp/Rc	3/8						
	Gas (G20)	Burner Type	Riello	R40 GS20 TC	RS34 MZ TC	RS34 MZ TC	RS34 MZ TC	RS34 MZ TC	RS44 MZ TC	RS44 MZ TC
		Minimum Inlet Pressure	mbar	17.5						
		Consumption	m³/h	18.7	22.3	26	29.7	33.4	37.1	40.7
		Connection	bsp/Rc	1	1¼	1¼	1¼	1¼	1½	1½
	LPG (Propane)	Burner Type	Riello	R40 GS20 TC	RS34 MZ TC	RS34 MZ TC	RS34 MZ TC	RS34 MZ TC	RS44 MZ TC	RS44 MZ TC
		Minimum Inlet Pressure	mbar	37.0						
		Consumption	m³/h	6.7	7.9	9.3	10.6	11.9	13.2	14.5
		Connection	bsp/Rc	1	1¼	1¼	1½	2	1½	2
	Electrics	v/ph/hz	230/1/50							
Installation Clearances	Front	mm	BL + 1000							
	Side	mm	450							
	Rear	mm	200							
Flue	mm Ø	175	175	250	250	250	250	250		
Nett Weight (Dry)	kg	483	560	636	715	792	869	947		

Notes:-
 Fuel consumption and output figures based upon gross calorific values as -
 Class D light distillate fuel oil nett CV 36.28 MJ/l
 Natural gas (G20) nett CV 34.02 MJ/m³
 Lpg Propane (G31) nett CV 95.65 MJ/m³

Model PON 05 is configured on/off as standard - high/low burner optional. All other models configured high/low as standard
 All boilers are supplied with a single wall flue adaptor, twin adaptors available as an option
 Installer guidance notes on rear page



Model		05	06	07	08	09	10	11
L Dimension		1070	1215	1360	1505	1650	1795	1940
BL Dimension	(Oil) mm	285	468	468	468	468	468	468
	(Gas) mm	389	580	580	580	580	580	580
D Dimension (Flue)	mm	175	175	250	250	250	250	250

Installation Guide

General The following notes are provided as a help, however installers and operators should fully acquaint themselves with the more detailed guidance provided in the relevant installation manual. For copies of such manuals please consult our technical department or visit our website - www.powrmatic.co.uk

Standards Powrmatic P series cast iron boilers must be installed, commissioned and operated with due regard to appropriate regulations, relevant Codes of Practice which may include but is not limited to BS5410, BS6644, BS6880 and the possible requirements of Local Authorities, Fire Officers and insurers as well as Powrmatic's installation manual.

Position & Location Boilers should be installed on a level non-combustible base. It is important that any plinths and supporting structures have due regard to the relevant weight loadings.

Consideration should also be given to flue routes and points of exit, gas, oil, electrical and control connections.

Plant Room or Enclosure Locations Specific requirements may need to be applied where boilers are to be installed within plant rooms or enclosures. Such requirements cover the provision of ventilation for combustion air and general plant room or enclosure ventilation. It is recommended that you consult with our technical department or the installation manual prior to installation.

Installation Clearances Particular clearances may be necessary for the correct and safe function of the boiler as well as for maintenance purposes. Such clearances are confirmed in the relevant installation manual.

Flue Each boiler requires a separate flue system of the appropriate size. The flue should essentially be installed in the vertical plane and the number of bends kept to a minimum.

The flue must be adequately supported and terminated with a suitable cowl, with due regard to the point of exit and its proximity to any windows, doors or ventilation intakes etc.

Water Treatment When the boiler is applied to either new or, in particular, existing systems, then care must be taken to ensure that the system is properly cleaned prior to commissioning.

To prevent the build up of calcified material, scale or other deposits these boilers should only be used on recirculation systems. In addition it may be necessary to consider specific water treatment measures to ensure that the water quality has a pH level of between 7.5 and 8.5 and a maximum hardness of less than 12 grams/100litres of water.

Boiler Protection To mitigate acidic condensation measures should be taken to ensure that return water temperatures exceed 60°C within ten minutes of commencement of each firing cycle. In addition it may be considered necessary to consider the inclusion of back-end protection pumps.

Each boiler should be fitted with a pump over-run device so that the circulating pump operates for a minimum of three minutes after the termination of each firing cycle.

Guarantee

Powrmatic boilers are provided with a comprehensive guarantee covering both the boiler and the individual cast iron sections. For United Kingdom sales the boiler has the benefit of a **one year** parts and labour guarantee whilst the cast sections have the benefit of a **five year** warranty. All guarantees and warranties are subject to terms and conditions.



Powrmatic Ltd
Hort Bridge
Ilminster
Somerset
TA19 9PS

tel: +44 (0) 1460 53535
fax: +44 (0) 1460 52341
e-mail: info@powrmatic.co.uk
web: www.powrmatic.co.uk



Powrmatic Ireland
45 Broomhill Close
Tallaght
Dublin 24

tel: +353 (0) 1452 1533
fax: +353 (0) 1452 1764
e-mail: info@powrmatic.ie
web: www.powrmatic.ie

