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FIREBIRD

HEATING SOLUTIONS

PRODUCT GUIDE



Solar Thermal Systems



Condensing Oil Boilers



Inset Stoves



Biomass & Backboilers

Working towards a greener planet

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FIREBIRD



HEATING SOLUTIONS

Stoves designed for your comfort

Our multifuel dry stove is perfect for those of you who like our aesthetically pleasing design but do not require the addition of a backboiler.



Features of our multifuel dry stove include:

- 100% Irish • Up to 75.6% efficiency • Designed to fit into a standard fireplace
- Easy to install • Clean, easy operation • Up to 8.2kW heat supplied to space (room)
- Glass air wash design • Available in 6.9kW and 8.2kW • 5 year warranty.



FIREBIRD HEATING SOLUTIONS LTD.

Baile Mhic Íre, Co. Cork. t: 026 45253

www.firebird.ie



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Firebird is proud to declare over 35 years manufacturing in the heating industry, developing some of the most renowned products on the market. Our product range covers everything you need for your heating solution.

From the robust elite manufacturing process, through to the dedicated sales, technical and training teams, Firebird can guarantee the highest quality product and service. In addition, our products are rigorously tested and approved to all relevant European and national standards.

We are all aware that the regulations require us to build more energy conscious houses with respect to

insulation, heating and orientation. This is why Firebird continue to expand its product range. In 2014, we launched Europe's most efficient boiler, the Enviromax Blue Supreme as well as the Blue Flame Enviromax boiler and the smoke exempt wood burning stove. All of these products form part of our BER "A" rated heating solution and are all manufactured in Ireland.

Our technical team are always on hand to advise on the best heating system for your domestic or commercial premises. We have the capability to integrate all our products to one combined system, reducing your energy bills by at least 20% per annum.

Firebird is ISO-9001 accredited and a long-standing member of OFTEC.



In addition, Firebird products enjoy some of the following accreditations:



Enviromax Blue Supreme Heatpac & Slimline Heatpac

These boilers are specifically designed for outdoors, eliminating the need to build a boiler house.

Features

- Most efficient boiler in Europe.
- 97.4% seasonal efficiency on SEAI HARP database.
- Increased heat recovery and reduced flue gas.
- Latest "blue flame" technology.
- Low NOx emissions and friendly to the environment.
- Constant efficiency throughout the year.
- Available in outputs of 20kW and 26kW.
- High quality weather proof PVC coated casing.
- Fully insulated to prevent heat loss.
- The Heatpac boiler comes with removable side panels and the Slimline Heatpac comes with a removable back panel.
- Ultra quiet operation.



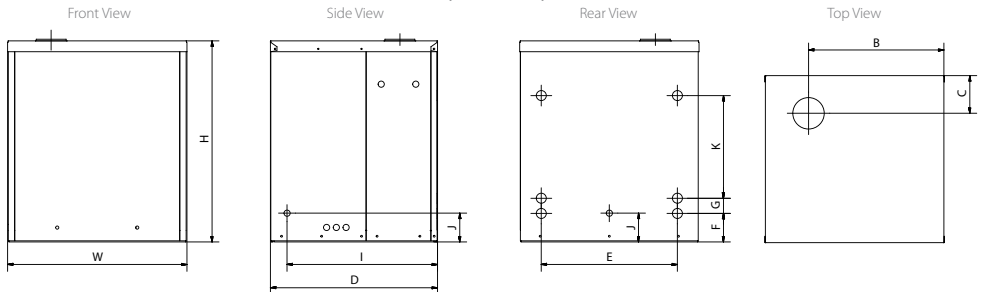
Specification

Model - Enviromax Blue Supreme	Sales Code	Weight kg	Dimensions (mm)													
			H	W	D	B	C	E	F	G	I	J	K	N		
Heatpac 20kW	EB5020HPK	185	930	830	773	626	174	630	132	70	696	133	475	-		
Heatpac 26kW	EB5026HPK	185	930	830	773	626	174	630	132	70	696	133	475	-		
Slimline Heatpac 20kW	EB5020SLM	180	930	595	920	509	317	100	133	145	838	126	400	115		
Slimline Heatpac 26kW	EB5026SLM	180	930	595	920	509	317	100	133	145	838	126	400	115		

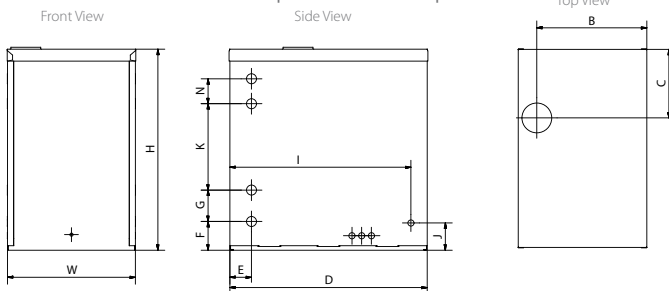


Dimensions (mm)

Blue Supreme Heatpac



Blue Supreme Slimline Heatpac



Enviromax Blue Supreme Popular

This boiler is designed for a boiler house, garage or outbuilding.

Features

- Most efficient boiler in Europe.
- 97.4% seasonal efficiency on SEAI HARP database.
- Increased heat recovery and reduced flue gas.
- Latest "blue flame" technology.
- Low NOx emissions and friendly to the environment.
- Constant efficiency throughout the year.
- Available in outputs of 20kW and 26kW.
- Built from premium quality steel.
- Compact design.

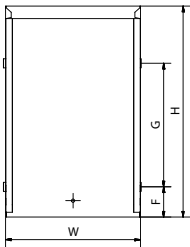


Specification

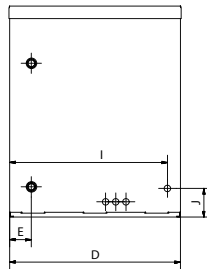
Model - Enviromax Blue Supreme	Sales Code	Weight kg	Dimensions (mm)									
			H	W	D	B	C	E	F	G	I	J
Popular 20kW	EBS020POP	175	930	595	760	509	175	96	133	545	696	126
Popular 26kW	EBS026POP	175	930	595	760	509	175	96	133	545	696	126

Dimensions (mm)

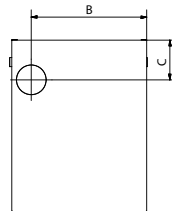
Front View



Side View



Top View



Enviromax Blue Supreme Utility

The Enviromax Blue Supreme Utility has a white casing finish and is designed to fit into a utility area.

Features

- Most efficient boiler in Europe.
- 97.4% seasonal efficiency on SEAI HARP database.
- Increased heat recovery and reduced flue gas.
- Latest "blue flame" technology.
- Low NOx emissions and friendly to the environment.
- Constant efficiency throughout the year.
- Available in outputs of 20kW and 26kW.
- Fully insulated and acoustically designed for ultra quiet operation.



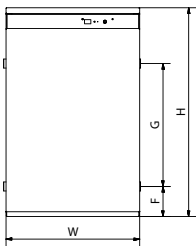
Specification

Model - Enviromax Blue Supreme	Sales Code	Weight kg	Dimensions (mm)									
			H	W	D	B	C	E	F	G	I	J
Utility 20kW	EBS020CUT	174	925	592	780	508	174	96	133	545	697	126
Utility 26kW	EBS026CUT	174	925	592	780	508	174	96	133	545	697	126

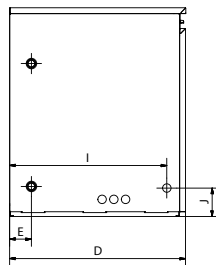


Dimensions (mm)

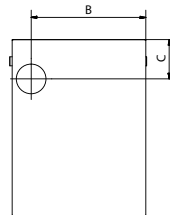
Front View



Side View



Top View



Blue Flame Enviromax Popular

This boiler is designed for a boiler house, garage or outbuilding.

Features

- Latest "blue flame" technology.
- Low NOX emissions and friendly to the environment.
- Constant efficiency throughout the year.
- Available in 26kW output.
- High quality weather proof PVC coated casing.
- Fully insulated to prevent heat loss.
- Whisper quiet operation.

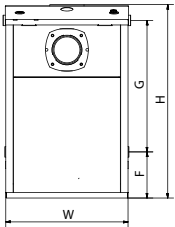


Specification

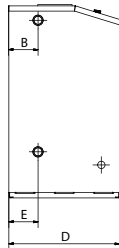
Model - Enviromax Blue Flame	Sales Code	Weight kg	Dimensions (mm)							
			H	W	D	B	C	E	F	G
Popular 26kW	CPO026BFB	125	740	470	425	113	177	100	176	502

Dimensions (mm)

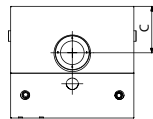
Front View



Side View



Top View



Enviromax Heatpac & Slimline Heatpac

The Enviromax Heatpac and Slimline Heatpac are specifically designed for outdoors, eliminating the need to build a boiler house.

Features

Heatpac

- High quality weather-proof PVC-coated casing (outputs up to 58kW).
- Fully insulated to prevent heat loss.
- Patented heat exchanger design.
- Removable side panels for easy access.
- 4-tapping points for ease of installation.
- Fitted with frost protection stat.
- Whisper quiet operation.
- Stainless steel terminal guard.
- High performance Riello RDB burner.
- Seven models in outputs from 12kW to 73kW.

Slimline Heatpac (as above except for the following)

- Only 465mm wide.
- 3-tapping points for ease of installation.
- Removable back panel for easy access.
- Three models in outputs from 12kW to 35kW.

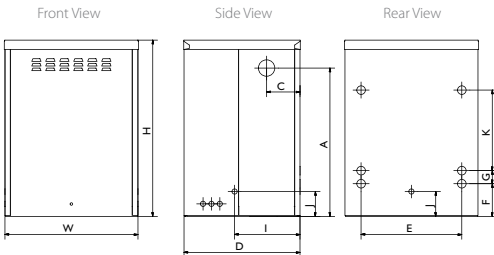


Specification

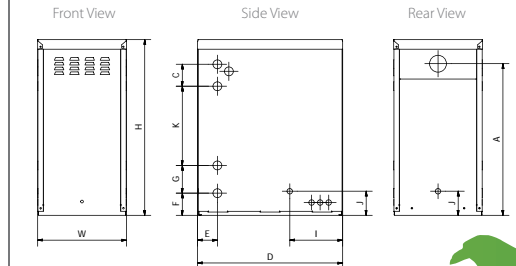
Model - Enviromax (output range)	Sales Code	Weight kg	Dimensions (mm)										
			H	W	D	A	C	E	F	G	I	J	K
Heatpac 12-18kW	CON015HPK	134	945	620	625	795	180	440	175	70	351	133	432
Heatpac 12-20kW	CON020HPK	154	945	720	625	795	180	540	175	70	351	133	432
Heatpac 20-26kW	CON026HPK	154	945	720	625	795	180	540	175	70	351	133	432
Heatpac 26-35kW	CON035HPK	158	945	720	625	795	180	540	175	70	351	133	432
Heatpac 35-44kW	CON044HPK	244	1074	839	855	936	180	684	175	115	507	134	505
Heatpac 44-58kW	CON058HPK	250	1074	839	855	936	180	684	175	115	507	134	505
Heatpac 58-73kW	CON073HPK	280	1200	903	855	1039	180	684	175	115	507	134	555
Slimline Heatpac 12-20kW	CON020SLM	147	920	465	760	794	115	104	116	145	277	126	415
Slimline Heatpac 20-26kW	CON026SLM	150	920	465	760	794	115	104	116	145	277	126	415
Slimline Heatpac 26-35kW	CON035SLM	153	920	465	760	794	115	104	116	145	277	126	415

Dimensions (mm)

Heatpac & Systempac



Slimline Heatpac



Enviromax Systempac & Combipac

The Enviromax Systempac and Combipac are external boilers with similar specifications to their equivalent indoor model, with the addition of a built in frost thermostat.

Features

Systempac

- High quality weather-proof PVC-coated casing.
- Low pressure switch protects boiler in the event of system water loss.
- Fully insulated to prevent heat loss.
- Patented heat exchanger design.
- Fitted with frost protection stat.
- Whisper quiet operation.
- Stainless steel terminal guard.
- Flue can exit left or right.
- High performance Riello RDB burner.
- Four models in outputs from 12kW to 44kW.

Combipac

- Excellent hot water performance - over 20 litres/min on 35kW model.
- PCB controller using highly accurate thermistors.
- Rapid re-heat after draw-off.
- High quality weather-proof PVC-coated casing.
- Fully insulated to prevent heat loss.
- Patented heat exchanger design.
- Flue can exit left or right.
- Twin circulating pumps – no diverter valve required
- Fitted with frost protection stat.
- Fully insulated and acoustically designed for ultra quiet operation.
- High performance Riello RDB burner.
- Three models in outputs from 12kW to 35kW.

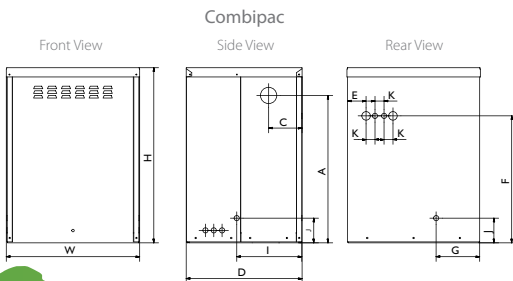


Systempac

Specification

Model - Enviromax (output range)	Sales Code	Weight kg	Dimensions (mm)										
			H	W	D	A	C	E	F	G	I	J	K
Systempac 12-20kW	CSP020NKT	163	945	720	625	795	180	540	175	70	351	133	432
Systempac 20-26kW	CSP026NKT	163	945	720	625	795	180	540	175	70	351	133	432
Systempac 26-35kW	CSP035NKT	166	945	720	625	795	180	540	175	70	351	133	432
Systempac 35-44kW	CSP044NKT	270	1074	839	855	936	180	684	175	115	507	134	505
Combipac 12-20kW	CCP020OOO	206	945	720	625	795	180	100	685	235	351	133	48
Combipac 20-26kW	CCP026OOO	206	945	720	625	795	180	100	685	235	351	133	48
Combipac 26-35kW	CCP035OOO	209	945	720	625	795	180	100	685	235	351	133	48

Dimensions (mm)



Please see previous page for Systempac diagram.



Combipac

Enviromax Popular

Ideal for installation in a dedicated boiler house, garage or outbuilding.

Features

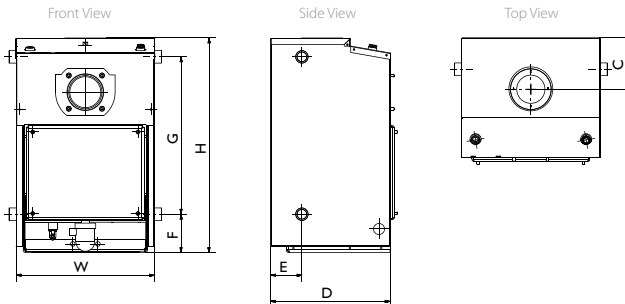
- Patented heat exchanger design.
- Built from premium quality steels.
- Compact design.
- 4-tapping points for ease of installation.
- Sturdy well insulated casing minimise heat loss.
- High performance Riello RDB burner.
- Eight models in outputs from 12kW to 100kW.



Specification

Model - Enviromax (output range)	Sales Code	Weight kg (incl. burner)	Dimensions(mm)			BURNER DEPTH				
			H	W	D	C	E	F	G	
Popular 12-18kW	CPO015RDB	99	684	344	381	202	164	100	122	502
Popular 12-20kW	CPO020RDB	107	684	441	381	202	164	100	122	502
Popular 20-26kW	CPO026RDB	112	684	441	381	202	164	100	122	502
Popular 26-35kW	CPO035RDB	115	684	441	381	202	164	100	122	502
Popular 35-44kW	CPO044RDB	182	815	470	533	202	154	97	128	615
Popular 44-58kW	CPO058RDB	190	815	470	533	253	154	97	128	615
Popular 58-73kW	CPO073RDB	210	873	530	527	253	155	97	123	670
Popular 80-100kW	CPO100RDB	300	1052	625	746	253	139	112	130	832

Dimensions (mm)



Enviromax Kitchen

A high quality finish ensures that this boiler fits into your kitchen perfectly.

Features

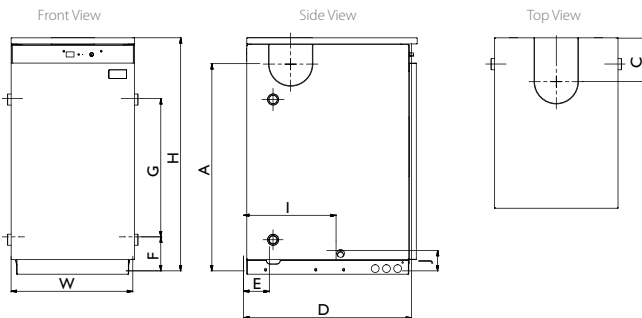
- Compact design - fits under standard kitchen worktop (outputs up to 35kW).
- Hard wearing casings with premium quality finish.
- Patented heat exchanger design.
- 4-tapping points for ease of installation.
- Front service access.
- PCB controller with anti cycling function (outputs up to 35kW).
- Fully insulated and acoustically designed for ultra quiet operation.
- Multi directional flue options.
- High performance Riello RDB burner.
- Optional condensate pump.
- Eight models in outputs from 12kW to 100kW.



Specification

Model - Enviromax (output range)	Sales Code	Weight kg	Dimensions(mm)									
			H	W	D	A	C	E	F	G	I	J
Kitchen 12-18kW	CKI015PCB	115	847	345	610	753	157	94	124	502	336	75
Kitchen 12-20kW	CKI020PCB	125	847	442	610	753	157	94	124	502	336	75
Kitchen 20-26kW	CKI026PCB	128	847	442	610	753	157	94	124	502	336	75
Kitchen 26-35kW	CKI035PCB	131	847	442	610	753	157	94	124	502	336	75
Kitchen 35-44kW	CKI044NKT	210	1048	464	852	914	154	100	130	615	485	86
Kitchen 44-58kW	CKI058NKT	216	1048	464	852	914	154	100	130	615	485	86
Kitchen 58-73kW	CKI073NKT	242	1196	524	851	1024	157	100	125	670	484	86
Commercial Utility 80-100kW	CUT100NKT	390	1249	623	1071	-	158	130	132	832	723	72

Dimensions (mm)



Enviromax System

Factory-fitted expansion vessel and circulating pump saves space and installation time.

Features

- Compact design - fits under standard kitchen worktop (outputs up to 35kW).
- Low pressure switch protects boiler in the event of system water loss.
- Hard wearing casings with premium quality finish.
- Patented heat exchanger design.
- Front service access.
- PCB controller with anti cycling function (outputs up to 35kW)
- Fully insulated and acoustically designed for ultra quiet operation.
- Multi directional flue options.
- High performance Riello RDB burner.
- Optional condensate pump.
- Four models in outputs from 12kW to 44kW.



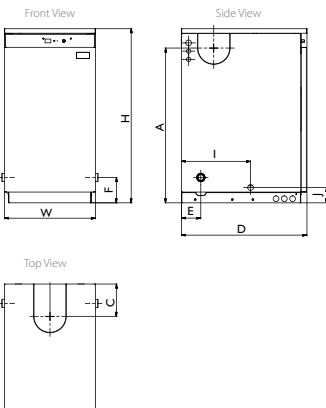
Circulating Pump

Specification

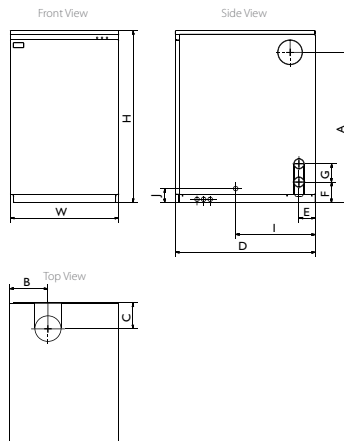
Model - Enviromax (output range)	Sales Code	Weight kg	Dimensions(mm)										
			H	W	D	A	B	C	E	F	G	I	J
System 12-20kW	CSB020NKT	143	847	442	610	753	-	157	94	124	-	336	75
System 20-26kW	CSB026NKT	146	847	442	610	753	-	157	94	124	-	336	75
System 26-35kW	CSB035NKT	149	847	442	610	753	-	157	94	124	-	336	75
System 35-44kW	CSB044NKT	235	1048	660	852	914	232	158	111	125	615	485	86

Dimensions (mm)

System 20kW, 26kW & 35kW



System 44kW



Enviromax Combi

The Enviromax Combi boiler provides both domestic hot water and central heating water in a single appliance, saving you the cost and space associated with a hot water tank.

Features

- Excellent hot water performance
 - over 20 litres/min on 35kW model.
- PCB controller using highly accurate thermistors.
- Rapid re-heat after hot water draw-off.
- Compact design - fits under standard kitchen worktop (outputs up to 35kW).
- Hard wearing casings with high quality finish.
- Patented heat exchanger design.
- Twin circulating pump - no diverter valve required.
- Fully insulated and acoustically designed for ultra quiet operation.
- Multi directional flue options.
- High performance Riello RDB burner.
- Optional condensate pump and timer controllers.
- Three models in outputs from 12kW to 35kW.



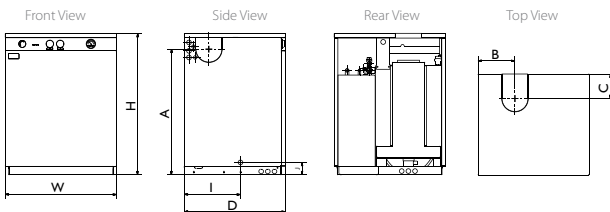
- Temperature Control
- Operation Lights
- Twin Timer Positions
- 7 Pin Plug Power Supply & Timers
- Pressure Gauge



Specification

Model - Enviromax (output range)	Sales Code	Weight kg	Dimensions (mm)							
			H	W	D	A	B	C	I	J
Combi 12-20kW	CCO020NKT	173	846	666	605	752	221	147	336	75
Combi 20-26kW	CCO026NKT	176	846	666	605	752	221	147	336	75
Combi 26-35kW	CCO035NKT	179	846	666	605	752	221	147	336	75

Dimensions (mm)



Technical Specification

	Enviromax Combi / Combipac			Enviromax System / Systempac			Enviromax (including Blue Supreme and Blue Flame) Kitchen / Heatpac / Popular / Slimline Heatpac					
	12-20+20-26	26-35	26-35	12-20+20-26	26-35	35-44	12-18	12-20+20-26	26-35	35-44+44-58	58-73	80-100
Heat Output	kW											
	Max. BTU/h ('000)											
CONNECTIONS	-	-	-	-	-	-	-	-	-	-	-	-
Heating Flow	22 mm dia.	28 mm dia.	22 mm dia.	28 mm dia.	1½" BSP	1" BSP	1" BSP	1" BSP	1" BSP	1½" BSP	1½" BSP	2" BSP
Heating Return	22 mm dia.	28 mm dia.	1" BSP	1" BSP	1½" BSP	1" BSP	1" BSP	1" BSP	1" BSP	1½" BSP	1½" BSP	2" BSP
Mains Cold Feed (Copper)	15 mm dia.	15 mm dia.	15 mm dia.	15 mm dia.	15 mm dia.	-	-	-	-	-	-	-
Hot Water Delivery (Copper)	15 mm dia.	15 mm dia.	-	-	-	-	-	-	-	-	-	-
Drain Off Valve	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP
Safety Pressure Valve Outlet (Copper)	15 mm dia.	15 mm dia.	15 mm dia.	15 mm dia.	15 mm dia.	-	-	-	-	-	-	-
Condensate Trap	22 mm dia. plastic		22 mm dia. plastic		22 mm dia. plastic		22 mm dia. plastic		22 mm dia. plastic		22 mm dia. plastic	
CIRCULATING PUMP	25/60	25/60	25/60	25/60	25/80	-	-	-	-	-	-	-
Domestic Hot Water Plate Heat Exchanger	25 plate	31 plate	-	-	-	-	-	-	-	-	-	-
Integral Expansion Vessel Normal Capacity	12 litres	12 litres	12 litres	12 litres	18 litres	-	-	-	-	-	-	-
Expansion Vessel Pre-charge Pressure	1 bar	1 bar	1 bar	1 bar	1 bar	-	-	-	-	-	-	-
Low Pressure Water Switch?	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗
Filling Loop Included?	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗
WATER CONTENT	-	-	-	-	-	-	-	-	-	-	-	-
Boiler	24 litres	24 litres	24 litres	24 litres	45 litres	24 litres	24 litres	24 litres	43.5 litres	54 litres	75 litres	-
Primary Tank	40 litres	40 litres	-	-	-	-	-	-	-	-	-	-
D.H.W. GUIDE PERFORMANCE*	-	-	-	-	-	-	-	-	-	-	-	-
in litres/min (120 litre draw-off at 40°C ΔT.)	16	20	-	-	-	-	-	-	-	-	-	-
FLUE (INDOOR BOILERS)	-	-	-	-	-	-	-	-	-	-	-	-
Balanced Flue Assembly	125 (5") mm dia.	125 (5") mm dia.	125 (5") mm dia.	125 (5") mm dia.	150 (6") mm dia.	125 (5") mm dia.	125 (5") mm dia.	125 (5") mm dia.	150 (6") mm dia.	180 (7") mm dia.	200 (8") mm dia.	-
Conventional Flue Assembly	80 id. mm dia.	80 id. mm dia.	80 id. mm dia.	80 id. mm dia.	100 id. mm dia.	80 id. mm dia.	80 id. mm dia.	80 id. mm dia.	100 id. mm dia.	125 id. mm dia.	150 id. mm dia.	-
Max. Low Level Flue Length	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	-
Max. High Level Flue Length	6m	6m	6m	6m	6m	6m	6m	6m	6m	6m	6m	-
Max. Vertical Level Flue Length	6m	6m	6m	6m	6m	6m	6m	6m	6m	6m	6m	-
INTEGRAL FLUES ON HEATPAC MODELS	-	-	-	-	-	-	-	-	-	-	-	-
HEATING SYSTEM (SEALED)	Fit in accordance with BS 7074 Part 1, BS 5449, OFTEC standards and all other relevant legislation.											
Max. Operating Pressure	2.5 bar		2.5 bar		-		-		-		-	
Max. System Pressure Cold	1.5 bar		1.5 bar		-		-		-		-	
Min. System Pressure Cold	0.5 bar		0.5 bar		-		-		-		-	
Preset Pressure Relief Valve	3 bar		3 bar		-		-		3 bar		-	
MAINS WATER SUPPLY PRESSURE	Min. 1 bar - Max. 10 bar (for user comfort, we recommend pressure at tap to be between 2 and 5 bar). Limescale excess: When over 150/200 ppm, fit appropriate scale reducer.											
WATER SIDE RESISTANCE	Flow Rate To Give A Nominal Output At 10K Differential							20kW	26kW	35kW		
	Flow Rate Measured							1642 kg/h	2135 kg/h	2874 kg/h		
	Waterside Resistance							0.18 mbar	0.18 mbar	0.18 mbar		
	Flow Rate To Give A Nominal Output At 20K Differential							20kW	26kW	35kW		
	Flow Rate Measured							870 kg/h	1131 kg/h	1523 kg/h		
	Waterside Resistance							0.19 mbar	0.19 mbar	0.19 mbar		
PRESSURE JET OIL BURNERS (Blue Supreme and Blue Flame)	RIELLO RDB 2.2 up to 44kW & RIELLO RDB 4.2 from 58kW to 100kW											
FUEL	MHG RHE 1.26HG.											
ELECTRICAL SUPPLY	Kerosene 28 Second Class C											
FROST THERMOSTATS	230V AC 50Hz 5A											
FROST STAT FITTED TO ALL OUTDOOR MODELS												
Boiler Central Heating Control	60°C - 80°C		60°C - 80°C		60°C - 80°C		60°C - 80°C		60°C - 80°C			
Boiler Safety Limit	110°C		110°C		110°C		110°C		110°C			
Tank (DHW) - Fixed	78°C		78°C		78°C		78°C		78°C			
Early Alert - Fixed	87°C		87°C		87°C		87°C		87°C			
Over-run - Fixed	93°C		87°C		87°C		87°C		87°C		(Heatpac, Slimline Heatpac & Kitchen only)	

* where water demand exceeds this, a flow restrictor is recommended. This will ensure a water supply at an adequate temperature.

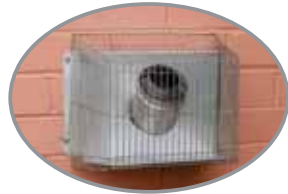
Condensing Flue Kits & Accessories



Flues are a critical part of a boiler installation. A correctly installed flue will ensure clean and efficient operation of the boiler. Firebird offer a range of high quality stainless steel flue kits that ensure optimum boiler performance and longer design life. Three types are available:

- Low Level Flue
- High Level Flue (Vertical & Horizontal)
- Conventional Flue

NB: Only Firebird-approved flue kits and accessories may be used on Firebird boilers. Use of unapproved flue kits may invalidate the boiler warranty policy.



LOW LEVEL FLUE KITS (see page 19 for Enviromax Blue Supreme flue options)

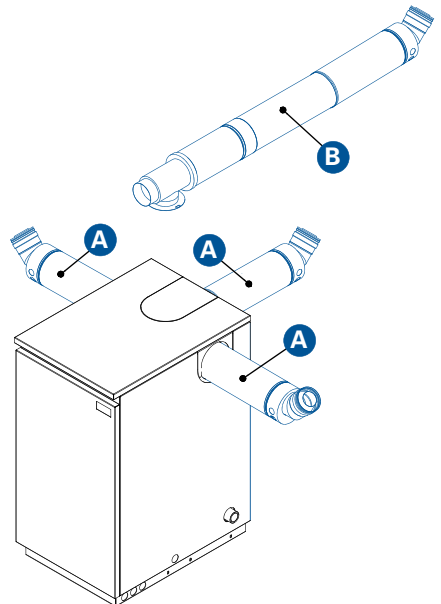
Low level flue kits have become popular in recent years due to their convenient size and ease of installation. When installing a condensing low level flue, consideration should be given to the discharge of the condense plume and in some cases a plume dispersal kit may be advisable.

Sales Code	Product Description
12-35kW	KITS AND EXTENSIONS (125mm dia)
A* CBF005KIT	Low Level Flue Kit 380-600mm Stainless Steel Guard inc.
A* CBF005SKT	Low Level Flue Kit (short) 280-425mm Stainless Steel Guard inc.
B CBF005EXT	450mm Extension for Low Level Flue Kit
44-58kW	KITS AND EXTENSIONS (150mm dia)
A* CBF006KIT	Low Level Flue Kit 380-600mm Stainless Steel Guard inc.
A* CBF006SKT	Low Level Flue Kit (short) 280-425mm Stainless Steel Guard inc.
B CBF006EXT	450mm Extension for Low Level Flue Kit
73kW	KITS AND EXTENSIONS (180mm dia)
A* CBF007KIT	Low Level Flue Kit 380-600mm Stainless Steel Guard inc.
B CBF007EXT	450mm Extension for Low Level Flue Kit

* A - Low Level Flue Kit

All low level flue kits contain:

- Telescopic balanced flue with Venturi Insert
- Terminal Guard
- Deflector Plate
- Silicone Lubricant
- Jubilee Clip for Air Snorkel
- Assembly Instructions



PLUME DISPERSAL KITS

(see page 19 for Enviromax Blue Supreme flue options)

A plume dispersal kit can be connected to the exhaust terminal of a low level flue in order to discharge flue gases [plume] up over head height and neighbouring properties. Plume dispersal options can be either used with a kit or retro-fitted to an existing concentric flue.

Sales Code Product Description

12-35kW KIT AND EXTENSIONS (80mm dia)

D*	PDK005SET	Plume Dispersal Kit
E	PDK250KIT	250mm Length
E	PDK500KIT	500mm Length
E	PDK1000KT	1000mm Length
F	PDK420KIT	305/420mm Adjustable Length
F	PDK920KIT	555/920mm Adjustable Length
G	PDK045BND	45 degree Bend
H	PDK005TRM	Terminal With Mesh
I	PDK090BND	90 degree Bend
J	PDK000CHC	Chinaman Hat Cowl
K	PDK000WBK	Wall Bracket
	PDK080POP	Adaptor

44-58kW KIT AND EXTENSIONS (100mm dia)

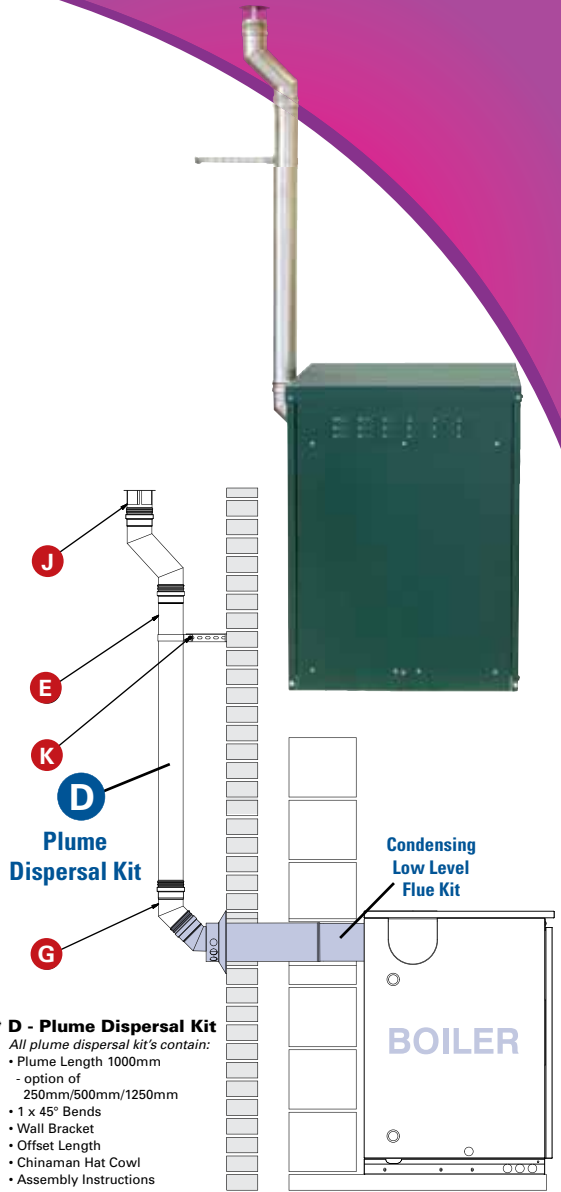
D*	PDK006SET	Plume Dispersal Kit
E	PDK256KIT	250mm Length
E	PDK506KIT	500mm Length
E	PDK1006KT	1000mm Length
F	PDK426KIT	305/420mm Adjustable Length
F	PDK926KIT	555/920mm Adjustable Length
G	PDK456BND	45 degree Bend
H	PDK006TRM	Terminal With Mesh
I	PDK906BND	90 degree Bend
J	PDK006CHC	Chinaman Hat Cowl
K	PDK006WBK	Wall Bracket
	PDK100POP	Adaptor

73kW KIT AND EXTENSIONS (125mm dia)

D*	PDK007SET	Plume Dispersal Kit
E	PDK257KIT	250mm Length
E	PDK507KIT	500mm Length
E	PDK1007KT	1000mm Length
F	PDK427KIT	305/420mm Adjustable Length
F	PDK927KIT	555/920mm Adjustable Length
G	PDK457BND	45 degree Bend
H	PDK007TRM	Terminal With Mesh
I	PDK907BND	90 degree Bend
J	PDK007CHC	Chinaman Hat Cowl
K	PDK007WBK	Wall Bracket
	PDK125POP	Adaptor

100kW KIT AND EXTENSIONS (150mm dia)

E	PDK258KIT	250mm Length
E	PDK508KIT	500mm Length
E	PDK1008KT	1000mm Length
F	PDK428KIT	305/420mm Adjustable Length
F	PDK928KIT	555/920mm Adjustable Length
G	PDK458BND	45 degree Bend
H	PDK008TRM	Terminal With Mesh
I	PDK908BND	90 degree Bend
J	PDK008CHC	Chinaman Hat Cowl
K	PDK008WBK	Wall Bracket
	PDK150POP	Adaptor

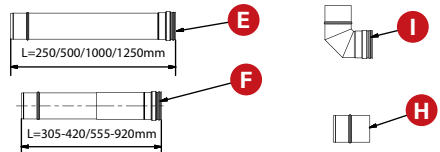


* D - Plume Dispersal Kit

All plume dispersal kit's contain:

- Plume Length 1000mm
 - option of 250mm/500mm/1250mm
- 1 x 45° Bends
- Wall Bracket
- Offset Length
- Chinaman Hat Cowl
- Assembly Instructions

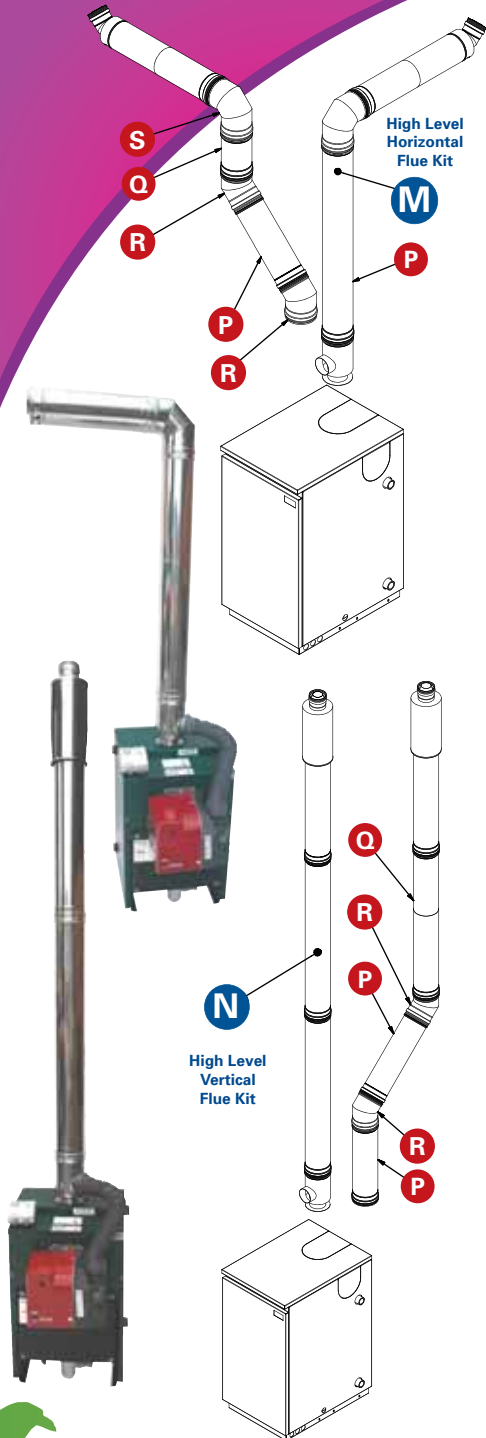
Other components available



HIGH LEVEL HORIZONTAL & VERTICAL FLUE KITS

(see page 19 for Enviromax Blue Supreme flue options)

High level flue kits are the optimal flue system as they provide good natural draft and ensure that the flue gases are discharged away from habitable areas.



Sales Code Product Description

12-35kW KITS & EXTENSIONS (125mm dia)

M*	HLF005HSS	1075mm High Level Horizontal Flue Kit
N*	HLF005VSS	3 metre High Level Vertical Flue Kit
P	HLF005XAS	1000mm High Level Vertical Extension
P	HLF005XBS	500mm High Level Vertical Extension
P	HLF005XCS	250mm High Level Vertical Extension
Q	HLF005XDS	305mm/420mm High Level Vertical Adjustable Length
Q	HLF005XES	555mm/920mm Adjustable Length
R	HLF455SLB	45 degree Bend
S	HLF905LBS	90 degree Bend
	HLF005WBS	Wall Bracket

44-58kW KITS & EXTENSIONS (150mm dia)

M*	HLF006HHL	1075mm High Level Horizontal Flue Kit
N*	HLF006VHL	3 metre High Level Vertical Flue Kit
P	HLF006EXA	1000mm High Level Vertical Extension
P	HLF006EXB	500mm High Level Vertical Extension
P	HLF006EXC	250mm High Level Vertical Extension
Q	HLF006EXD	305mm/420mm Adjustable Length
Q	HLF006EXE	555mm/920mm Adjustable Length
R	HLF456ELB	45 degree Bend
S	HLF906ELB	90 degree Bend
	HLF006WBK	Wall Bracket

73kW KITS & EXTENSIONS (180mm dia)

M*	HLF007HHL	1075mm High Level Horizontal Flue Kit
N*	HLF007VHL	3 metre High Level Vertical Flue Kit
P	HLF007EXA	1000mm High Level Vertical Extension
P	HLF007EXB	500mm High Level Vertical Extension
P	HLF007EXC	250mm High Level Vertical Extension
Q	HLF007EXD	305mm/420mm Adjustable Length
Q	HLF007EXE	555mm/920mm Adjustable Length
R	HLF457ELB	45 degree Bend
S	HLF907ELB	90 degree Bend
	HLF007WBK	Wall Bracket

100kW KITS & EXTENSIONS (200mm dia)

M*	HLF008HHL	1075mm High Level Horizontal Flue Kit
N*	HLF008VHL	3 metre High Level Vertical Flue Kit
P	HLF008EXA	1000mm High Level Vertical Extension
P	HLF008EXB	500mm High Level Vertical Extension
P	HLF008EXC	250mm High Level Vertical Extension
Q	HLF008EXD	305mm/420mm Adjustable Length
Q	HLF008EXE	555mm/920mm Adjustable Length
R	HLF458ELB	45 degree Bend
S	HLF908ELB	90 degree Bend
	HLF008WBK	Wall Bracket

* M - High Level Horizontal Flue Kit

All high level horizontal flue kits contain:

- Boiler Adaptor
- 1000mm Vertical Length
- 90° Bend
- Telescopic Horizontal Section
- Wall Seal
- Silicone Lubricant
- Assembly Instructions

* N - High Level Vertical Flue Kit

All high level vertical flue kits contain:

- Boiler Adaptor
- 1000mm length including Terminal
- 2 x 1000mm Lengths
- Rain Cowl
- Storm Collar
- 2 x Wall Brackets
- Silicone Lubricant
- Assembly Instructions

Enviromax

Blue Supreme Flues

Flues are a critical part of a boiler installation. A correctly installed flue will ensure clean and efficient operation of the boiler. Firebird offer a range of high quality stainless steel and white flue kits that ensure optimum boiler performance and longer design life. Two types are available:

- Top Outlet Low Level Flue
- High Level Flue (Vertical & Horizontal)

NB: Only Firebird approved flue kits and accessories may be used on Firebird boilers. Use of unapproved flue kits may invalidate the boiler warranty policy.

Top Outlet Low Level Flue

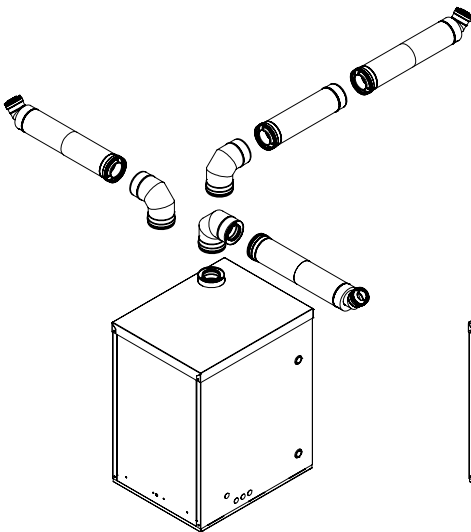
When installing a top outlet low level flue, consideration should be given to the discharge of the condensate plume as it may cause a nuisance to neighbouring properties. In some cases a plume dispersal kit may be advisable.

Sales Code	Product Description
BSF005CBF	Blue Supreme Top Outlet Low Level Flue Kit - Stainless Steel
BSF005WBF	Blue Supreme Top Outlet Low Level Flue Kit - White

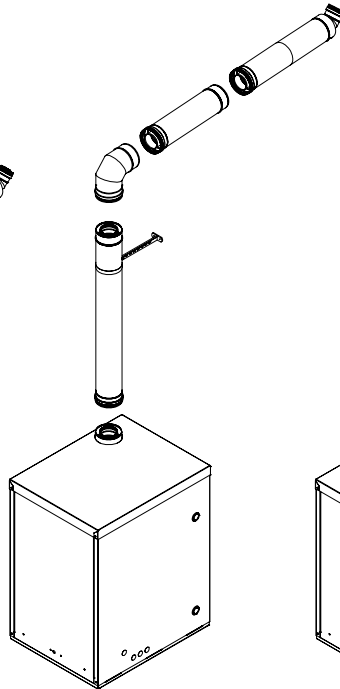
High Level Horizontal & Vertical Flue Kits

High level flue kits are the optimal flue system as they provide good natural draft and ensure that the flue gases are discharged away from habitable areas.

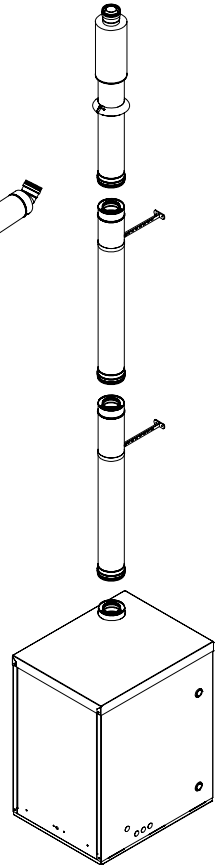
Sales Code	Product Description
BSF005HHL	Blue Supreme High Level Horizontal Flue Kit
BSF005VHL	Blue Supreme High Level Vertical Flue Kit



Low Level Flue



High Level
Horizontal Flue



High Level
Vertical Flue

Flue kits are included with all Heatpac models.

Boiler Spare Parts

Sales Code Description

Burner Parts

Burner & Oil Hose

BRN070RB2	RDB2.2 Burner, 20kW
BRN090RB2	RDB2.2 Burner, 26kW
BRN120RB2	RDB2.2 Burner, 35kW
BRN150RB3	RDB2.2 Burner, 44kW
BRN200RB4	RDB4.2 Burner, 58kW
BRN250RB4	RDB4.2 Burner, 73kW
ZE3007621	Flexible Oil Hose 600mm - Kerosene
ZE3005720	Flexible Oil Hose 900mm - Kerosene
ZE20032005	Flexible Pipe 600mm - Bio & Gas Oil
ZE20022601	Flexible Pipe 900 mm - Bio & Gas Oil
ZE3003602	Connector 3/8 to 1/4
ZE3009068	Connector 3/8 to 3/8

G Burner Spares













ZE20031996	Pump
ZE3001156	Control box
ZE3002280	Photocell
ZE3007971	Motor
ZE3002279	Coil
ZE20087025	Capacitor
ZE3005787	Gasket
ZE3020500	Hydraulic Ram
ZE3005721	Electrode Set - G3B
ZE3008636	Flange
ZE3000439	Centre Seals
ZE3000443	10 Pack Drive Coupling

RDB Burner Spares



















ZE20030953	Pump
ZE3008652	Control Box
ZE3008646	Photocell
ZE20071577	Motor & Condenser
ZE3008648	Coil
ZE20071576	Capacitor 4.5uf
ZE3005787	Gasket
ZE3007513	Electrode
ZE3008860	Electrode (short head)

Sales Code Description

Thermostat Parts

ACCCHKSTK	Dual Thermostat (Heatpac)	
ACC000DST	Dual Thermostat (Popular)	
ACC000EAS	Early Alert Stat (Combi) Pump Over Run Stat (Kitchen & Heatpac) (87° C)	
ACC000TDF	Thermodisc Frost Stat	
ACC000FST	Frost Stat TLM 2557	
ACC000LMT	High Limit Stat (Firebird 'S' - Combi Mechanical) (110° C)	
ACC001ORS	Over Run Stat (Combi) (90° C)	
ACC000OHS	Single Control Stat (Slimline Heatpac) (87° C)	
ACC000RTS	Relay Tank Stat (Combi) (78° C)	
ACCCOMPKT	Stat Pocket 000949 4 pocket	
ACC003PKT	Stat Pocket DIA 15 x 16 3 pocket	
ACC000STA	Control Stat (Firebird 'S' - Combi Mechanical) (50° - 80°C)	

Boiler Spare Parts

Sales Code	Description	
Plumbing Parts		
ACCCOMMAC	Air Vent 1/8" Manual	
ACCCOMAAV	Air Vent Auto	
ACC022VAL	Ball Valve - 22mm	
ACC000PCV	Check Valve Nylon	
ACC034MMC	Check Valve 3/4" Brass Male/Male	
ACC034MFC	Check Valve 3/4" Brass Male/Female	
ACC034FMC	Check Valve 3/4" Brass Female/Male	
ACCENVPMP	Condensate Pump	
ACC000TRP	Condensate Trap	
ACC000FLX	Condensate Trap Flexi Hose	
ACCCOMHOS	Expansion Vessel Flexible Hose	
ACC012PVL	Expansion Vessel 12 litre	
ACC014PVL	Expansion Vessel 14 litre	
ACC018PVL	Expansion Vessel 18 litre	
ACC022PNR	Pump Isolating Valve c/w Non Return Check Valve	
ACC000SSH	Air Hose	
ACC000FLP	Flap Valve	
ACC000FVA	Flap Valve Adaptor	

Sales Code	Description	
Plumbing Parts		
ACC000PHW	Set of Teflon Washers	
ACC012WSH	Fibre Washer 12.5 x 18.5 x 1.5mm red	
ACC017WSH	Fibre Washer 17 x 24 x 1.5mm red	
ACC015FCV	Filling Loop Check Valve	
ACC000FLH	Filling Loop Hose 400mm	
ACCBRSFSW	Flowswitch, Sika Mark 1	
ACCCOMFSW	Flowswitch, Sika Mark 2	
ACCCOMDCV	Double Check Valve 15mm	
ACC025PHE	Plate Heat Exchanger - 25	
ACC031PHE	Plate Heat Exchanger - 31	
ACCCOMPRG	Pressure Gauge (Combi - System)	
ACCCOMSRV	Pressure Release Valve	
ACC022PIV	Pump Isolating Valve 22mm	
ACCCOMTMV	Thermostatic Mixing Valve (Combi) 15mm	
ACCCOMPMP	HE Circulating Pump (Grundfos)	
ACC130PMP	HE Circulating Pump (Lowara)	
ACC150PMP	Circulating Pump	












Boiler Spare Parts


Sales Code Description

Sales Code Description

Electrical Parts

Other Parts

ACC000RTP	Flow Switch Probe Thermistor (Red)	
ACC000TIM	Combi Twin Timer Kit (Combi Mechanical)	
ACC000PCB	Digital Controller (Combi)	
ACC000ECG	Digital Controller (Kitchen/System)	
ACC000PSW	Pressure Switch	
ACC000RLY	Relay 230 Vac	
ACC000WTP	Boiler & Tank Thermistor Probes (White)	
ACC000ETM	Combi Twin Timer Kit Electronic	
ACC000BAS	Relay Base 11 Pin	
ACC000CLK	Time Clock (Single) (MK2 Combi)	
ACC000SCT	24hr Single Channel Timer FM1/STUH (MK1 Combi)	

ACC035GSK	Combustion Door Insulation 20/26/35kW	
ACC044GSK	Combustion Door Insulation 44/58kW	
ACC073GSK	Combustion Door Insulation 73kW	
ACC100GSK	Combustion Door Insulation 100kW	
ACC035GRA	Graphite Board 20/26/35kW	
ACC044GRA	Graphite Board 44/58kW	
ACC073GRA	Graphite Board 73kW	
ACC100GRA	Graphite Board 100kW	
ACC090GSK	Combustion Door Insulation 50/70/90kW	
ACC120GSK	Combustion Door Insulation 120kW	
ACC150GSK	Combustion Door Insulation 150kW	
ACC200GSK	Combustion Door Insulation 200kW	
ACC250GSK	Combustion Door Insulation 250kW	
ACC310GSK	Combustion Door Insulation 310kW	
ACC000KEY	Heatpac Key	
ACC000LCK	Heatpac Lock	
ACCTNKTIG	Deaerator Box	
ACC020BRD	Ceraboard (1200x1000x20mm)	
ACC000CTG	Terminal Guard	
ACC075MGF	¾" Magnetic Filter	
ACC100MGF	1" Magnetic Filter	

Full lists of spare parts are provided in the boiler manuals.

Solar Thermal Systems

Firebird's range of solar thermal systems is arguably the most extensive on the market and offers customers a wide choice of collectors, system configurations and accessories. Designed and manufactured to Firebird's exacting standards, our solar systems are second to none in terms of performance, durability and efficiency. All our solar systems have been placed through rigorous testing to ensure the highest standards have been achieved.



CPK7210-N Flat Panel Collector



TZ58-1800 Heat Pipe Solar Collector



CVSKC-10 Vacuum Tube Collector

Solar thermal systems can deliver up to 70% of the hot water requirements for an average household in Ireland. Installation of solar energy on a larger scale, ie. commercial, can make a great contribution to commercial energy costs.

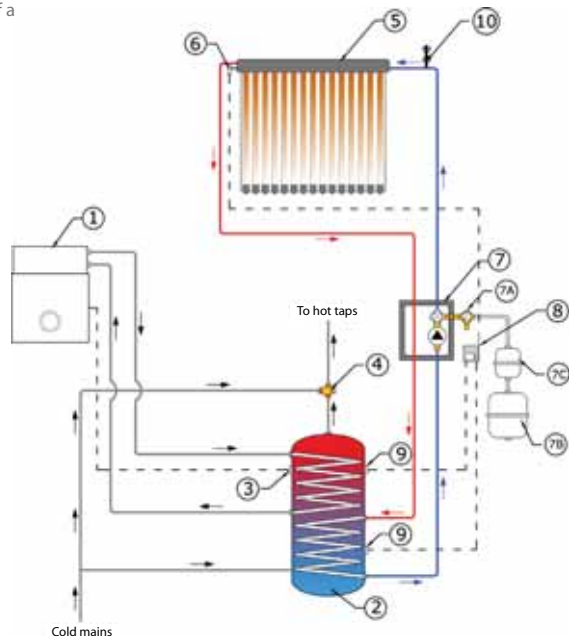
By using solar energy to heat hot water, you will be helping to reduce our dependence on fossil fuels, while improving the energy efficiency and potentially the value of your home. A typical domestic solar hot water system can save in excess of a tonne of CO₂ per annum. In particular, solar energy scores positively with the new BER - Building Efficiency Rating scheme.



No. of Persons	No. of collectors	Tank Size (l)
2-4	2 x CPK7210-N Flat Panel collectors 2 x CVSKC-10 Vacuum Tube collectors 30 - 40 TZ58-1800 heat pipes	200
4-6	3 x CPK7210-N Flat Panel collectors 3 x CVSKC-10 Vacuum Tube collectors 40 - 60 TZ58-1800 heat pipes	300

Guide to Solar Thermal Systems available from Firebird.

1	Firebird Condensing Boiler	7A	Pressure Relief Valve
2	Unvented Cylinder	7B	Expansion Vessel
3	Temp. Sensor (after heating)	7C	Intermediate Vessel (if needed)
4	Mixing Valve	8	Controller
5	Solar Collector	9	DHW Tank sensor
6	Collector Temp. Sensor	10	Air Vent
7	Pump Station		





Solar Collectors

Firebird offer three collector types to ensure that customers can choose the right collector to suit their installation requirements and budget.

CPK7210-N Flat Panel Collector

Firebird's CPK7210-N Flat Plate Collector is one of the most efficient collectors in the world, with an optical efficiency of 81.8%. One of the unique features of the CPK7210-N is that the collector base is extruded from a single aluminium sheet thus removing the need for welds, joints or gluing at the corners.

Other features:

- Glass is a special tempered solar glass.
- Absorber is constructed from a single sheet of Tinnox™ selective absorber coating.
- Heat transfer pipes behind the absorber are ultrasonically welded along the entire length to ensure optimal heat transfer.
- 50mm of mineral wool insulation.
- Professional finish.

Sales Code SOL100FPC



TZ58-1800 Heat Pipe Solar Collector

The TZ58-1800 Heat Pipe Solar Collectors offer an optimum performance to price ratio. The tubes are highly efficient due to a round shaped absorber design so that they capture the solar energy throughout the day.

Other features:

- High build quality - aluminium manifold design, nickel plated condenser head, borosilicate glass.
- Manifold can be installed initially and the tubes added later during commissioning (avoiding the lifting of heavy items onto the roof).
- Reinforced mounting kit manufactured to Firebird's specification.

Sales Code SOL820VTS - 20 Tube Set
SOL830VTS - 30 Tube Set



CVSKC-10 Vacuum Tube Collector

The CVSKC-10 Vacuum Tube Collector is a U-pipe direct flow evacuated tube, often referred to as a 'Sydney' tube. They are amongst the most efficient solar collector designs due to the CPC reflector aluminium plate placed behind the tubes. It reflects solar radiation back onto the absorber. The CVSKC-10 collector offers optimum performance in terms of the installation footprint. Ten tubes have an incredible aperture area of 1.6m and with a height of only 1.64m, will fit on most restricted roof spaces.

Other features:

- Delivered assembled to cut down installation time.
- Co-axial glass tubes with excellent vacuum ~5 Pascals.
- Transfer manifold insulated with mineral wool insulation.
- Light weight construction for ease of handling.

Sales Code SOL150VTC

Technical Specification		CPK7210-N Flat Panel	TZ58-1800 Heat Pipe 20 tube set 30 tube set		CVSKC-10 Vacuum Tube
Outer dimensions:	Height [mm]	2038	2020	2020	1645
	Width [mm]	1039	1825	2655	1115
	Depth [mm]	98	155	155	107
Tube dimensions	Diameter [mm]	-	58	58	37
	Length [mm]	-	1800	1800	1550
Weight	[kg]	38	78	115	31
Gross collector area	[m ²]	2.11	3.507	5.005	1.83
Aperture area	[m ²]	1.88	1.867	2.791	1.59
Max operating pressure	[bar]	10	6	6	10
Stagnation temperature	[°C]	216	200	200	286
Angle of inclination permitted		15° to 75°	15° to 75°	15° to 75°	15° to 75°
Performance data *					
Zero-loss collector efficiency	η_0	74.1%	73.4%	73.4%	60.5%
Collector heat loss coefficient, a1	[W/m ² K]	3.705	1.529	1.529	0.850
Collector performance ratio, a2	[W/m ² K ²]	0.015	0.0166	0.0166	0.010
Absorption		> 95%	> 94 %	> 94 %	> 96%
Emission		< 5%	< 7%	< 7%	< 6%
Annual energy yield	[kWh/m ²]	> 525	> 525	> 525	> 529

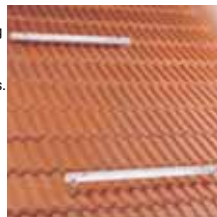
* All based on aperture area.

FIXING OPTIONS

PITCHED ROOF

All Firebird solar collectors can be installed on a normal slate or tiled roof using our weather-proof aluminium mounting frame kits. Mounting kits are constructed from robust materials and come with easy to follow instructions. Mounting kits for CPK7210-N Flat Plate collectors and CVSKC-10 Vacuum Tube collectors are available for double and single collector configurations. Mounting kits for TZ58-1800 Heat Pipe Solar collectors are supplied for sets of 20 and 30 tubes.

Sales Code	Description	
SOL101FMT	On-roof Mounting Kit	- 2 CPK7210-N Flat Plate collectors
SOL103FMT	On-roof Mounting Kit	- 1 extra CPK7210-N Flat Plate Collector
SOL151VMT	On-roof Mounting Kit	- 2 CVSKC-10 Vacuum Tube collectors
SOL153VMT	On-roof Mounting Kit	- 1 extra CVSKC-10 Vacuum Tube Collector
SOLB22KIT	On-roof Mounting Kit	- 20 TZ58-1800 Heat Pipe Solar Collector
SOLB32KIT	On-roof Mounting Kit	- 30 TZ58-1800 Heat Pipe Solar Collector



IN-ROOF

An in-roof installation kit is available for CPK7210-N Flat Plate collectors. Note that in-roof installation is not possible with CVSKC-10 Vacuum Tube collectors or TZ58-1800 Heat Pipe Solar collectors. With an in-roof kit the collectors are set lower on the roof giving a more aesthetically pleasing finish. Our in-roof kit comes with side, top and bottom flashings, collector mounting rails, coach bolts, rubber seals and installation instructions. Available in double and single collector configurations - for tiled and slate roof constructions. For slate roofs, order SOL513SRS and either SOL511TRF or SOL512SRS.

Sales Code	Description	
SOL511TRF	In-Roof Mounting Kit Tile Roof	- 2 CPK7210-N Flat Plate collectors
SOL512TRF	In-Roof Mounting Kit Tile Roof	- 1 extra CPK7210-N Flat Plate Collector
SOL513SRS	In-Roof Soaker Kit Slate Roof	- Soakers Only



FLAT ROOF INSTALLATION

If solar collectors have to be installed on a flat roof or surface, then a flat roof mounting kit is required. Flat roof kits are available for all collectors and come with mounting frame, coach bolts, rubber seals and installation instructions. Available in double and single collector configurations.

Sales Code	Description	
SOL102FMT	Flat Roof Kit	- 2 CPK7210-N Flat Plate collectors
SOL104FMT	Flat Roof Kit	- 1 extra CPK7210-N Flat Plate Collector
SOL152VMT	Flat Roof Kit	- 2 CVSKC-10 Vacuum Tube collectors
SOL154VMT	Flat Roof Kit	- 1 extra CVSKC-10 Vacuum Tube Collector
SOL174FRK	Flat Roof Kit	- 20 TZ58-1800 Heat Pipe Solar Collector
SOL172FRK	Flat Roof Kit	- 30 TZ58-1800 Heat Pipe Solar Collector



SOLAR CONTROLLERS & PUMP STATIONS

CONTROLLER

The Firebird solar controller ensures the efficient operation of the solar system, managing the efficient transfer of the solar energy from the collectors to the water storage tank. The controller is easy to use and displays key system data at the touch of a button, i.e.:

- Collector temperature.
- Upper and lower tank temperatures.
- Activation of solar circulating pump.
- Hours of operation.
- Alternative arrangement layouts.
- Pump speed efficiency.
- Emergency safety shut off.
- Additional anti-freeze functions.
- Easy to use holiday function.
- Anti-legionella control.

In addition the controller has a second available relay that facilitates features such as:

- Back-up heat source available for central heating or immersion connection.
- Timer set up for back up heat source heating.
- Surplus energy usage.



PUMP STATION

The Firebird solar pump station houses the key plumbing components for a solar system including solar circulating pump, non return gravitational valves, flow rate regulator, pressure relief valve, connection for expansion vessel as well as filling points.

Sales Code	Description
SOL405CTR	Deltasol SLL Controller
SOL545PMP	Twin Line HE Pump Station

EAST / WEST CONTROLLER & PUMP STATION

For East / West installations, you will require the Deltasol SLL controller and two twin line HP pump stations.

Sales Code	Description
SOL405CTR	Deltasol SLL Controller
SOL545PMP	Twin Line HE Pump Station x 2



WATER STORAGE TANKS

The solar twin coil tank is used to store hot water heated by the solar system. The tank has two internal coils, the solar circuit provides heat through the lower coil while the back-up heating system (boiler) will heat the hot water via the upper coil.

Firebird water storage tanks are built from premium quality stainless steel and include an electric immersion as standard.

Sales Code	Description
SOL215TNK	Twin Coil Solar Tank - 215 litres
SOL305TNK	Twin Coil Solar Tank - 305 litres
SOL305TCT	Triple Coil Solar Tank - 305 litres



SYSTEM COMPONENTS

THE FOLLOWING COMPONENTS MAY BE SUPPLIED AS
STANDARD ON CERTAIN SOLAR SYSTEM KITS

EXPANSION VESSELS

An expansion vessel is necessary to absorb the expansion of the solar fluid when high temperatures are reached in the solar collector. Currently available sizes are 24 and 35 litres.

Sales Code	Description
SOL502EXP	24 litre Expansion Vessel
SOL503EXP	35 litre Expansion Vessel



SOLAR ANTI-FREEZE

The heat transfer fluid used in a solar circuit is normally a mixture of water and a polypropylene glycol anti-freeze. The glycol anti-freeze also contains an additive to protect against corrosion and evaporates at higher temperatures than water to allow higher system temperatures. Firebird recommends a 40% glycol to 60% water mix to ensure frost protection to circa -25°C.

Sales Code	Description
SOL507VFL	Tyfocon LS Anti-freeze for Tube System



ACCESSORY KIT - EXPANSION VESSEL

Expansion vessel accessory kit includes check valve, wall bracket and 1 flexi hose.

Sales Code	Description
SOL521PPK	Expansion Vessel Accessory Kit



ANTI-SCALD MIXING VALVE

Anti-scald (mixing) valve must be fitted close to the hot water outlet of the solar tank so that delivery to the taps does not exceed 48°C.

Sales Code	Description
SOL504MIX	Anti-scald Mixing Valve



STAINLESS STEEL INSULATED TWIN PIPE

Flexible pre-insulated twin pipe with UV protection sheath for linking collectors to solar tank. Saves considerable installation time and money. (Fittings Included).

Sales Code	Description
SOL010TWP	Insulated Twin Pipe DIN16 – 10m
SOL015TWP	Insulated Twin Pipe DIN16 – 15m
SOL025TWP	Insulated Twin Pipe DIN16 – 25m



AIR VENT & ISOLATING VALVE

An automatic air vent should be fitted at the highest point in the solar circuit system in order to remove air from the system during commissioning. An isolating valve should be fitted before the air vent and isolated once the system has been commissioned.

Sales Code	Description
SOL530ASV	Air Vent & Isolating Valve



FLEXI PIPES, 1M

High grade 1m stainless steel flexi pipes which can be connected to the flow and return side of the collector array. This saves the installer having to make complicated pipe bends through the roof of the house. Fittings can be included to connect the pipe to the different solar collector types.

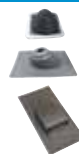
Sales Code	Description
SOL402FPP	1m Flexi Pipe
SOL001ELB & SOL001FEM	Fittings for CPK7210-N Flat Plate Collector
SOL075ELB & SOL075TAP	Fittings for CVSKC-10 Vacuum Tube and TZ58-1800 Heat Pipe Solar collectors



PIPE FLASHING

The pipe flashings provide a tidy solution for passing solar flow and return pipes through the house roof.

Sales Code	Description
SOL509TRF	Pipe flashing - tiled roof
SOL510SRF	Pipe flashing - slate roof



OTHER PARTS

Sales Code	Description
SOL514FPC	Weather-proof Cover for CPK7210-N Flat Plate Collector
SOL515VTC	Weather-proof Cover for CVSKC-10 Vacuum Tube Collector
SOL000FPS	Solar Filling & Flushing Pump
SOL527RFR	Refractometer
SOL528CFL	Solar Cleaning Fluid, 500ml
SOL000BOV	Blow-off Storage Vessel
SOL010TSTV	TSV Lightning Protection (for controller)
SOL526RLY	Auxiliary Relay HR230 (for controller)
SOL000SPF	Solar Paste Kit



Tanks & Exchangers

Water Storage Tanks

The solar twin coil tank is used to store hot water heated by the solar system. The tank has two internal coils, the solar circuit provides heat through the lower coil while the back-up heating system (boiler) will heat the hot water via the upper coil.

Firebird water storage tanks are built from premium quality stainless steel and include an electric immersion as standard.



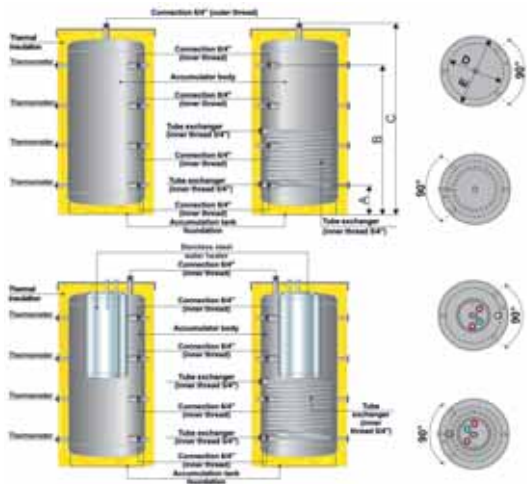
Sales Code	Description
SOL215TNK	Twin Coil Solar Tank - 215 litres
SOL305TNK	Twin Coil Solar Tank - 305 litres
SOL305TCT	Triple Coil Solar Tank - 305 litres

Firebird Insulated Tanks

Firebird have a new range of tanks to accommodate multi system installations. The tanks are produced to Firebird's highest quality standards and are all fitted with a 120mm insulation jacket.



Sales Codes:	Range:
A SOL500TNK	500L Insulated Tank (direct)
B SOL500SCT	500L Insulated Tank (with single coil)
C SOL500ITK	500L Insulated Tank in Tank
B SOL800SCT	800L Insulated Tank (with single coil)
D SOL800ITK	800L Insulated Tank in Tank (with single coil)
B SOL1000CT	1000L Insulated Tank (with single coil)
D SOL1000TK	1000L Insulated Tank in Tank (with single coil)



Accumulation Tank

An accumulation tank must be used in conjunction with the Firebird wood gasification boiler. The recommended sizing is a minimum 50 litres of water storage for every 1 kW of rated output. Firebird recommend a 2,000 litre tank.



Sales Code	Description
WGB200TNK	2000 Litre Accumulation Tank

Transfer Tanks & Exchangers

Firebird has launched a range of transfer tanks that facilitate multi-system design and retrofits. These include the junction buffer 2-4 box, with 24 litre capacity and the solid fuel heat exchanger, with 22 litre capacity. Both boxes are designed to accommodate multiple heating systems within a typical dwelling. They can also facilitate the integration of an additional system (i.e. stove) into an existing heating unit.



Firebird Junction Buffer 2-4 Box

- For zone systems, under floor heating and multi-function systems.
- Capacity for integration of new system (e.g. air to water) to link into existing system.
- Reduce boiler cycling issues.
- 4mm steel shell, fully insulated and external green casing as standard.

Sales Code: ACCJNCBOX



Firebird Solid Fuel Heat Exchanger

- Solid fuel/pressurised system integration.
- Easy to install, ground / wall mounted.
- Water volume storage to comply with regulations.
- White case finish.

Sales Code: ACCSFHEXH

Backboilers

Challenger Backboiler

The Challenger backboiler is extremely efficient due to three unique design features:

- Simplified straight-through flue-ways. The tapered shape is designed to extend the flame to cover the complete heat exchanger surfaces (see diagram).
- Top water tube. This heating tube, positioned horizontally above flue-ways, collects much of the heat which would otherwise be lost into the chimney.
- Dry-back, lift-off, radiant panel. Can rise to a higher temperature than the normal type cooled by water.

The Challenger backboiler can be easily cleaned by lifting off the radiant panel. This allows immediate access to the unique layout of flue-ways. Bearing in mind that 1.5mm soot reduces the efficiency by up to 25%.

The Challenger allows balanced performance via the dry-back radiant panel/damper. The panel can rise to a higher temperature than one cooled by water and the increased radiant heat minimises the drop in room-heating when the damper is opened to heat water/radiators.



Supreme Backboiler

Similar in design to the Challenger, the Supreme backboiler has a higher output due to the increased number of flueways.

Dimensions

Challenger Backboiler Dimensions		
Height	22 ³ / ₈ "	(570mm)
Depth	12 ³ / ₈ "	(317mm)
Width	16" model	20 ¹ / ₂ " (520mm)
	18" model	22 ¹ / ₂ " (570mm)

Supreme Backboiler Dimensions		
Height	22 ³ / ₈ "	(570mm)
Depth	12 ³ / ₈ "	(317mm)
Width	16" model	20 ¹ / ₂ " (520mm)
	18" model	22 ¹ / ₂ " (570mm)
	20" model	24 ¹ / ₂ " (622mm)
	22" model	26 ¹ / ₂ " (673mm)

Min. Builders Opening Dimensions	
Height	23" (585 mm)
Depth	14" (355 mm)
Width	16" model
	25" (585 mm)
	18" model
	27" (685 mm)
	20" model
	29" (735 mm)
	22" model
	31" (790 mm)

Sales Code **CHALLENGER BACKBOILER**
 CHL016000 16" model
 CHL018000 18" model

Sales Code **SUPREME BACKBOILER**
 SUP016000 16" model
 SUP018000 18" model
 SUP020000 20" model
 SUP022000 22" model

Sales Code **GRATES**
 GRA016RND 16" Round Grate
 GRA016SQR 16" Square Grate
 GRA016TPR 16" Tapered Grate
 GRA018RND 18" Round Grate
 GRA018SQR 18" Square Grate
 GRA020RND 20" Round Grate
 GRA020SQR 20" Square Grate
 GRA022RND 22" Round Grate



100%
IRISH



Inset Stoves

Firebird based their first inset stove on their very first product, the Supreme backboiler. Following on from the overwhelming success of the multifuel backboiler stove, they launched the multifuel dry inset stove. The Firebird inset stove range now consists of three types of inset stoves:

- Multifuel backboiler stove.
- Multifuel dry stove.
- Smoke exempt wood burning dry stove.



Multifuel Backboiler Inset Stove

All the comfort of a stove with the benefit of heat to your house as well

Features

- Designed to fit into a standard fireplace.
- Easy to install.
- Clean, easy operation.
- Solid multifuel options.
- Suitable for airtight dwellings where underfloor, external air-in ducting is provided.
- Glass air wash design.
- Enamel option available.
- Reduces your heating bills.
- Available in 12kW and 16kW.
- 5 year warranty.
- HETAS approved.

Output

- Up to 81% efficiency.
- Up to 12kW heat supplied to radiators.



Multifuel Dry Inset Stove

A stove designed for your comfort

Features

- Designed to fit into a standard fireplace.
- Easy to install.
- Clean, easy operation.
- Solid multifuel options.
- Suitable for airtight dwellings where underfloor, external air-in ducting is provided.
- Glass air wash design.
- Available in 6.9kW and 8.2kW.
- 5 year warranty.
- HETAS approved.

Output

- Up to 75.6% efficiency.
- Up to 8.2kW heat supplied to space/room.



Smoke Exempt Wood Burning Inset Stove

1 deal for a new build and to assist with BER compliance

Features

- Designed to fit into a standard fireplace.
- Easy to install.
- Clean, easy operation.
- Wood burning.
- Suitable for airtight dwellings where underfloor, external air-in ducting is provided.
- Glass air wash design.
- Clean burn technology.
- Smoke exempt DEFRA approved.
- 5 year warranty.
- HETAS approved.

Output

- Up to 75.9% efficiency.
- Up to 5kW heat supplied to space/room.



Specification



Dry Inset Stove	Product	Sales Code Matt	Room Output	Efficiency	Weight kg	Height (mm)	Inset Width (mm)	Depth (mm)
	6.9kW	MAX016DRY	6.9kW	74.4%	95	560	406-470	375
	8.2kW	MAX018DRY	8.2kW	75.6%	102.4	560	455-520	375

Smoke Exempt Wood Burning Dry Inset Stove	Product	Sales Code Matt	Room Output	Efficiency	Weight kg	Height (mm)	Inset Width (mm)	Depth (mm)
	5kW	MAX005SED	5kW	75.9%	102.4	560	455-520	375

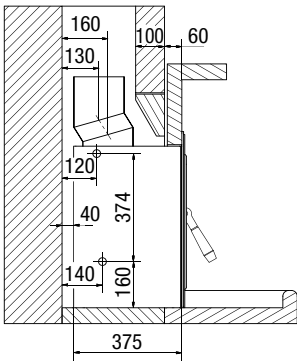
Backboiler Inset Stove	Product	Sales Code Matt	Sales Code Enamel	System Output	Room Output	Efficiency	No. of Standard Radiators	Weight kg	Height (mm)	Inset Width (mm)	Depth (mm)
	12kW	MAX016000	MAX016NML	8.3kW	3.6kW	80%	6	96.6	560	406-470	375
	16kW	MAX018000	MAX018NML	12.1kW	3.6kW	81%	9	105	560	455-520	375

* Room seal kit available: 16" - ACC016RSK, 18" - ACC018RSK

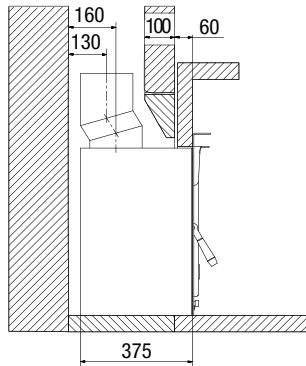
Note: The outline is similar for all stoves. The dimensions for the sockets are not relevant for the dry and smoke exempt wood burning stoves. All dimensions are relevant to stove/boiler section. Outer face framework is not taken into account. Dimensions are measured from pipe socket to socket, i.e. 16" from outer pipe connection to outer pipe connection. To comply with Building Regulations and in order for the stove to operate effectively, an air vent and draught of at least 12 Pa is required.

Dimensions (mm)

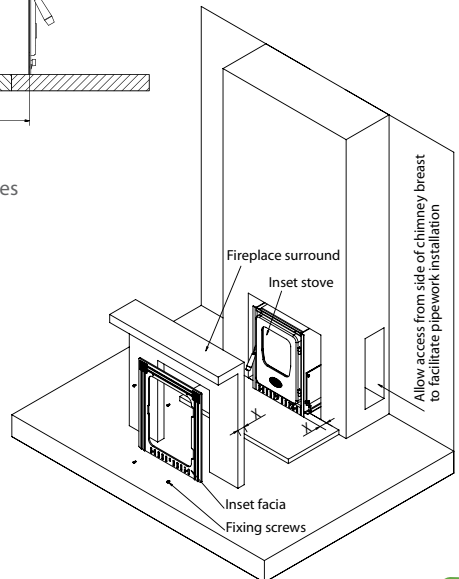
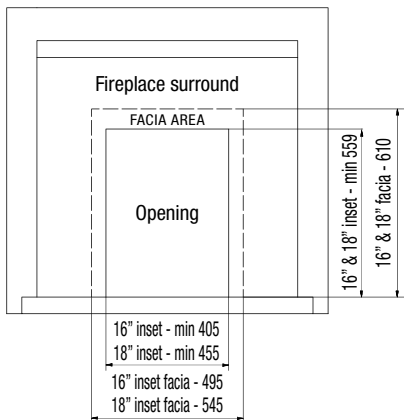
Backboiler Inset Stove



Dry & Smoke Exempt Wood Burning Dry Inset Stove



Backboiler, Dry & Smoke Exempt Wood Burning Dry Inset Stoves



Wood Gasification Boiler

The Firebird wood gasification boiler represents the very latest in high efficiency wood burning.

Gasification is achieved in wood burning when gases released from the combusting wood are mixed with a regulated supply of oxygen to create a complete oxidation process. This results in extremely high combustion efficiencies and minimal ash waste.

Wood gasification boilers can only be used to burn split logs or wood briquettes. Coal, peat, refuse, etc. can not be used in these boilers. The best woods are hard woods like Ash, Oak & Beech (moisture content must be 20% or less).



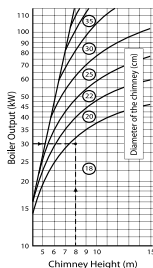
Accumulation Tank

An accumulation tank must be used in conjunction with the Firebird wood gasification boiler. The recommended sizing is a minimum 50 litres of water storage for every 1 kW of rated output. Firebird recommend a 2,000 litre tank.



Flue

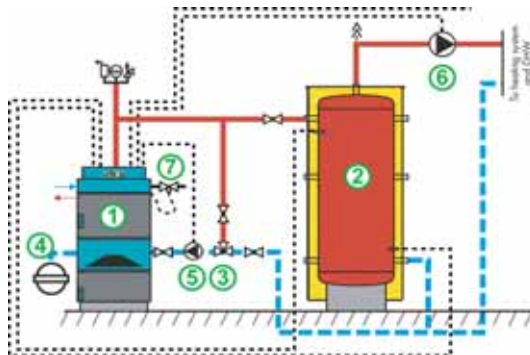
Having the right draft and flue construction is critical to the operation of the wood gasification boiler. Flue height must be according to the chart (on right).



System layout

A suggested schematic diagram for a wood gasification boiler can be seen below. For an unvented (pressurised) system, a thermal safety valve must be installed.

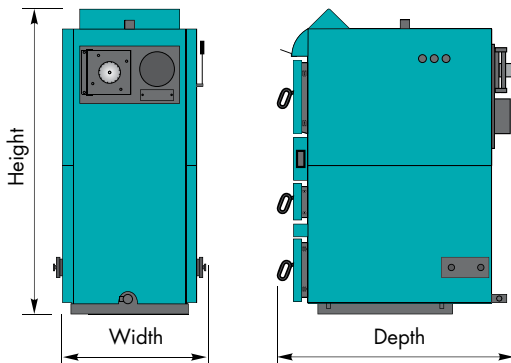
- 1 - Wood Gasification Boiler
- 2 - Accumulation Tank
- 3 - Three Way Thermostatic Valve
- 4 - Expansion Vessel
- 5 - Boiler Pump
- 6 - Circulation Pump
- 7 - Thermal Safety Valve



Technical Data

Model	35
Rated thermal output	(kW) 35
Boiler water content	(litres) 96
Boiler weight	(kg) 515
Max. volume of wood	(litres) 144
Max. length of the log	(mm) 550
Flue diameter	(mm) 200
Depth	(mm) 1290
Height	(mm) 1385
Width	(mm) 725
Min. accumulator tank	(litres) 2000

Sales Code	
WGB035BLR	Wood Gasification Boiler 35
WGB200TNK	2000 Litre Accumulation Tank
WGB200KIT	200mm Wood Gas Twin Wall Flue Kit
WGB000PGS	Pump Changing System Ladomat 21
WGB000TSV	Thermal Safety Valve



Wood Pellet Boiler

Firebird's wood pellet boiler represents the very latest in carbon neutral heating for use in domestic and light commercial applications.

Features

High efficiency

Firebird wood pellet boilers have efficiencies in the high 80's due to their highly efficient operation and well insulated boiler shell. The large chamber design ensures that the boiler does not clog up with ash.

Heating comfort

This wood pellet boiler is fully automatic in its operation. On start up, an electric heater ignites the pellets and the digital controller manages the entire operation. The boiler is fully modulating in that the feed rate of pellets is varied, depending on the boiler temperature and heating demand.

Ease of cleaning

All maintenance points are easily accessible and a set of cleaning tools and brushes are supplied. The burner is on a hinged door and can be opened by hand. The burner grate, which should be cleaned weekly, is fully retractable.

Automated control

The digital controller located at the top of the boiler is designed to be user friendly. The main boiler functions can be controlled from here and key system parameters entered.

Fuel

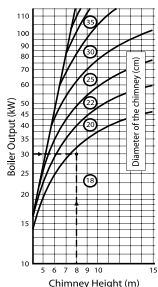
Only certified wood pellets approved to EN14961 may be burned in the Firebird wood pellet boilers. The below fuel characteristics must be adhered to.

- calorific value > 5 kW/kg (18 MJ/kg)
- diameter = 6 mm • max. length = 35 mm
- max. humidity = 8% • max. dust = 0,5%



Flue

Ensuring the correct size flue is critical to the operation of any biomass boiler. The chart on the right outlines the minimum flue diameter and height required for the different boiler outputs.



Technical Data

Model	25	35
Rated thermal output	(kW) 25	35
Boiler water content	(litres) 90	101
Boiler weight	(kg) 435	475
Flue diameter	(mm) 150	160
Power supply	230 V AC / 50Hz	

Outer dimensions (boiler & tank)

Height	(mm)	1590	1590
Depth	(mm)	1055	1055
Width	(mm)	1201	1301

Sales Code

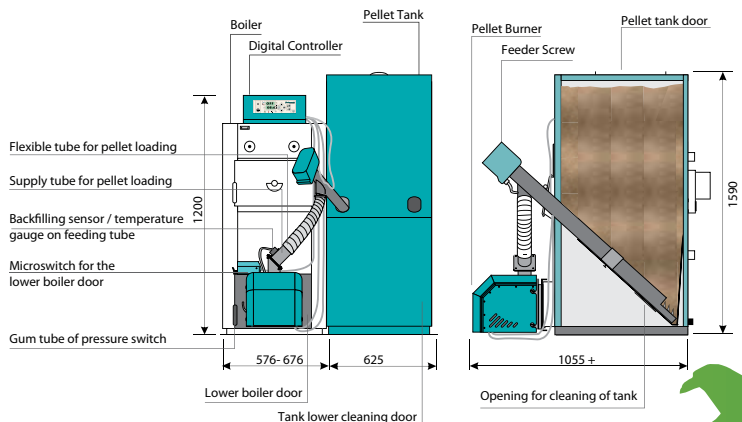
Wood Pellet Boiler
Wood Pellet Flue Kit
Wood Pellet Auger & Hopper

25

FWP025NKT
FWP025FLU
FWP000FED

35

FWP035NKT
FWP035FLU
FWP000FED



Warranty



Complete After-Sales Service

Firebird has always provided their customers with the highest levels of after sales care. All products are supported by a nationwide network of independent service engineers who are regularly trained on our appliances.

Boiler Passport

An OFTEC co-ordinated "Boiler Passport" booklet is included with every oil boiler shipped from our factory. This passport will stay with the boiler, much like a car's service log book. The commissioning certificate page is on multipart carbon paper and one copy must be completed by an OFTEC registered or competent, qualified engineer and returned to Firebird in the enclosed prepaid envelope within 10 days of commissioning.



Our Warranty Policy

OIL FIRED BOILERS

Firebird offers a 5 year warranty on the boiler shell and a 2 year warranty on all other parts from date of installation, provided installation has occurred within 12 months from date of purchase. The 5 year boiler shell warranty consists of labour and parts for the first 3 years and parts only in years 4 and 5. The warranty is conditional on the boiler being commissioned and operated correctly. To validate your warranty, Firebird require that the commissioning certificate page in the Boiler Passport is completed by an OFTEC registered or competent, qualified engineer and returned to Firebird within 28 days of installation and commissioning.

SOLAR

Firebird offers 5 years warranty on all solar collectors and 2 years warranty on all other parts from date of installation, provided installation has occurred within 12 months from date of purchase.

INSET STOVES

Firebird offers a 5 year warranty on the inset stove shell and a 2 year warranty on other parts from date of installation, provided installation has occurred within 12 months from date of purchase. The 5 year inset stove shell warranty consists of labour and parts for the first 3 years and parts only in years 4 and 5. The warranty is conditional on the stove being commissioned and operated correctly. To validate your warranty, Firebird require that the warranty registration form (at the back of the instruction manual) is completed by a competent, qualified engineer and returned to Firebird within 28 days of installation and commissioning.

BIOMASS BOILERS

Firebird offers 5 years warranty on the boiler shell and 2 years warranty on all other parts from date of installation, provided installation has occurred within 12 months from date of purchase.

Full terms and conditions of Firebird's warranty programme can be viewed on www.firebird.ie

www.firebird.ie

www.firebird-solar.com



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