

Controls

A control panel is supplied for mounting on the front of each boiler. It is supplied with wiring for connection to the burner and boiler thermostats. Additional controls can be added to suit burners with a modulating type operation if required.

Volt free kits can also be supplied, details available on request.

The standard panel is supplied with the following :-

- On/off switch
- Temperature gauge
- Control thermostat, adjustable from 40 - 90°C
- High/low thermostat, adjustable from 40 - 90°C
- An overheat Safety thermostat, preset to 110°C (with manual reset)
- Burner connection terminal

The panel requires a 230v 50Hz single phase electricity supply from a suitable fused isolator.

Installation

Clearances

Optimajor Plus boilers should be installed and positioned so that there is adequate access to the flue and pipework connections. The boilers should also be installed so that there is enough room at the front for cleaning and maintenance of the boiler/burner unit. Consideration should also be given to the position and projection of the burner with the boiler door in the open position. Optimajor Plus boilers can be located next to each other in modular formation, with a minimum gap of 10mm recommended between boiler casings.

Burners

A burner is normally supplied and matched to the boiler to give either on/off, high/low or fully modulating operation, which ensures optimum operating efficiency to suit specific requirements. The burner is bolted to the boiler front door by the site assembly team and comes pre-wired to the control panel with a plug in lead.

Ancillary items

It is recommended that a suitably sized safety valve is fitted in the flow pipework before the isolation valve. Please note that the safety

valve, pressure gauge and drain valve are not supplied with the boiler.

Boiler base

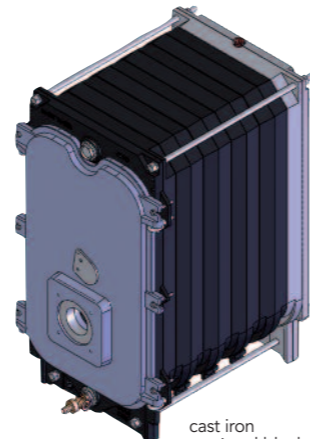
Optimajor Plus boilers should be located on a surface capable of supporting the fully flooded weight of the boiler and burner and it should be smooth, level and constructed from a non flammable material.

Delivery

Delivery to site can be arranged.

Commissioning

Commissioning of the boiler/burner can be arranged.



cast iron sectional block

Ormandy Group Associated Products

The Ormandy group has an extensive range of boilerhouse products, which compliment the Ormandy Hartley & Sugden boiler range. All Ormandy products can be skid mounted to specific requirements. Detailed information on all Ormandy products is available on request.

Additional products include:

- Pressurisation units
- Storage and Non Storage Calorifiers
- Plate heat exchangers
- Package plant rooms which can be designed to incorporate any of the above equipment



Please visit www.ormandytld.com to access comprehensive information on Ormandy Hartley & Sugden products and services.

The Ormandy Group: Ormandy Offsite / Ormandy Rycroft / Ormandy Electric Ormandy Hartley & Sugden / Ormandy Newade / Ormandy Dreh / Ormandy Aquatherm
For full information on the Ormandy Group and all its products and services, please visit www.ormandytld.com Tel +44 (0)1422 350111



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Ormandy Group follows a policy of continuous improvement in the design and performance of its products. Therefore we reserve the right to make changes and improvements to our products without notice which may affect the accuracy of the descriptions and illustrations contained in this brochure.

Optimajor Plus

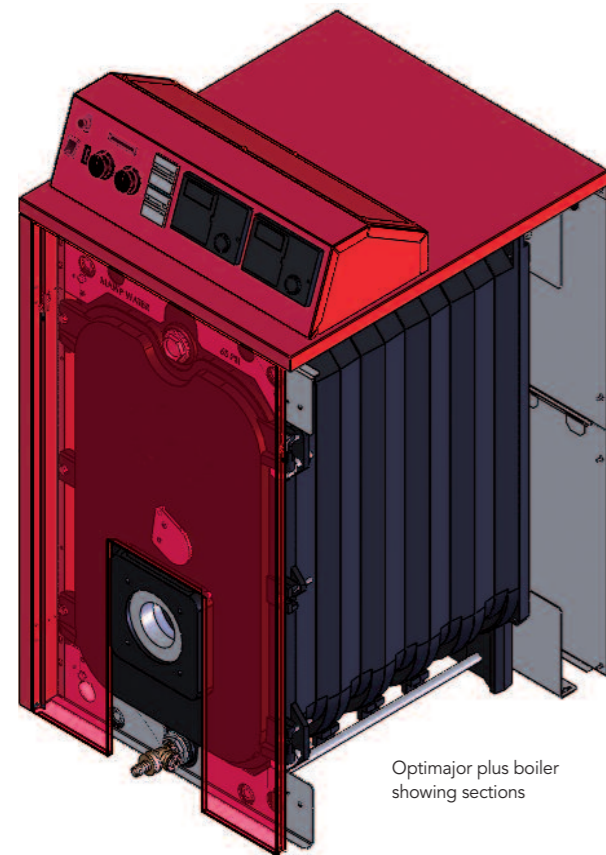
Cast Iron Sectional Hot Water Boiler
Suitable for Pressure Jet Burners
Oil or gas firing

Outputs 60 - 137 kW



Optimajor Plus - Cast Iron Boiler

The Optimajor Plus is a range of cast iron sectional boilers available in sizes from 60 - 137 kW. The boilers are suitable for firing on Natural gas, 35 second oil, LPG, and Kerosene, with a choice of burner manufacturers. The boiler can be supplied either fully assembled or unassembled, to suit site conditions.



Optimajor plus boiler showing sections

Design features

- Manufactured from Hypoeutectic cast iron
- Combustion chamber guaranteed for 5 years
- Supplied either assembled or unassembled
- Manufactured to EN303
- Insulated steel casing
- Left or right hand hinged front door

Performance features

- Up to 4 bar working pressure
- Outputs up to 137 kW
- Up to 92% efficiency (net CV)
- Small footprint and compact dimensions

Design & Construction

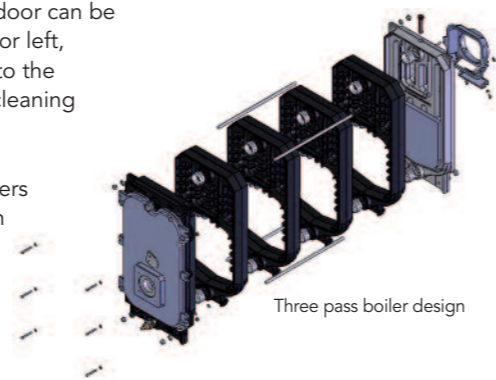
Optimajor Plus boilers are manufactured from hypoeutectic cast iron, which has high corrosion resistant properties. The boilers are of a reliable and proven three pass design and the cast iron combustion chamber is guaranteed for five years. They can be supplied either assembled or unassembled, depending

upon site restrictions. Details of our boiler site assembly service are available on request.

The boilers are assembled using bi-conical steel nipples between each boiler section. Optimajor Plus boilers are also supplied with 100mm thick insulation and a painted steel casing.

The cast iron front door can be hinged either right or left, giving easy access to the boiler sections for cleaning purposes.

Optimajor Plus boilers are manufactured in accordance with EN303 and are CE certified.



Three pass boiler design

General Description

Optimajor Plus boilers have a small footprint, making them particularly suitable for boilerhouses with limited access and space. The boilers have a typical efficiency across the range of up to 92% (net CV).

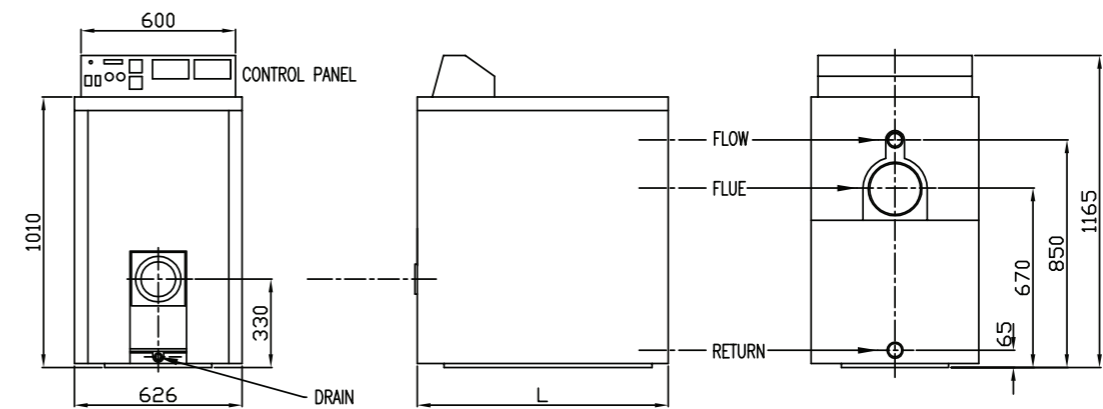
They also have a maximum working pressure of up to 4 bar, with a maximum flow water temperature of 90°C and a minimum return water temperature of 40°C. The maximum temperature differential between the flow and return is 35k.

The boilers are supplied complete with a control panel located on the top of the boiler, which has been factory tested.

Optimajor Plus boilers should be installed in accordance with BS 6644 where applicable and other relevant standards, codes of practice and current building regulations. Water treatment is recommended for all cast iron boilers and a water treatment specialist should be consulted for advice on this matter.

Technical Data and Dimensions

Optimajor Plus



Optimajor Plus Model	3.0	4.0	5.0	6.0	7.0	8.0
Output (kW)	60	83	98	113	128	137
No. of sections	5	6	7	8	9	10
Dimensions & weight						
Length L (mm)	733	733	939	939	1145	1145
Approx. dry weight (kg)	345	395	445	495	545	595
Efficiency based on net CV						
Efficiency (%) @ 100% load (70°C)	89.9	90.4	90.6	90.9	91	91.1
Efficiency (%) @ 30% load (50 °C)	90.1	90.7	91.3	91.9	92.2	92.5
Combustion and flue data						
Gas flow rate G20 (m ³ /h)	7.0	9.6	11.3	13.1	14.8	16.0
Oil flow rate (l/h)	6.9	9.4	11.1	12.9	14.6	15.7
Flue Gas Volume (m ³ /min)	2.6	3.5	4.2	4.8	5.5	5.9
Approx Flue Gas Temp. (°C)	176	176	176	177	177	178
Comb. Chamber Resistance (mbar)	0.08	0.11	0.15	0.20	0.27	0.36
Required draught at flue outlet (mbar)	0.13	0.2	0.2	0.25	0.32	0.41
Water system						
Hydraulic Resistance (11k) (mbar)	1.7	2.7	3.9	5.3	6.9	8.75
Hydraulic Resistance (20k) (mbar)	0.51	0.82	1.18	1.6	2.09	2.65
Minimum water rate (11k) (l/s)	0.33	0.45	0.53	0.61	0.69	0.74
Minimum water rate (20k) (l/s)	0.18	0.25	0.29	0.34	0.38	0.41
Water content (l)	40	47.5	55	62.5	70	77.5
Connections						
Flue connection size (mm)	200	200	200	200	200	200
Flow & Return connection size Female thread	R2"	R2"	R2"	R2"	R2"	R2"
Drain connection size Female thread	R3/4"	R3/4"	R3/4"	R3/4"	R3/4"	R3/4"