

OPTIMAJOR PLUS



The OPTIMAJOR PLUS is a medium power boiler that can be equipped with a forced draught fuel oil or gas burner. It has a cast iron heating body guaranteed for 10 years and an anti-corrosion combustion chamber, and satisfies all individual, collective and industrial heating needs, in a new or renovated installation.

70 kW - 235 kW



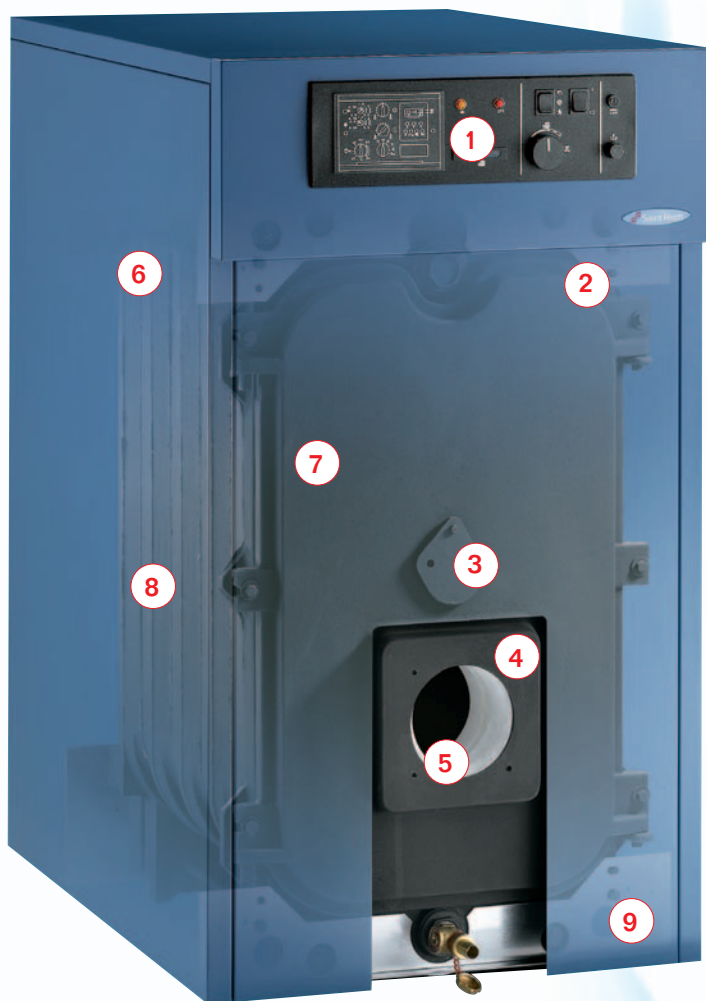
 **Saint Roch** 
The warmth of your life

OPTIMAJOR PLUS

Saint Roch Hypoeutectic Cast Iron

Since 1903 Saint Roch Couvin Has been a leading innovator in the casting technology in Belgium. Saint Roch boilers are well known for their very long life and high output due to the Saint Roch hypoeutectic grey cast iron alloy.

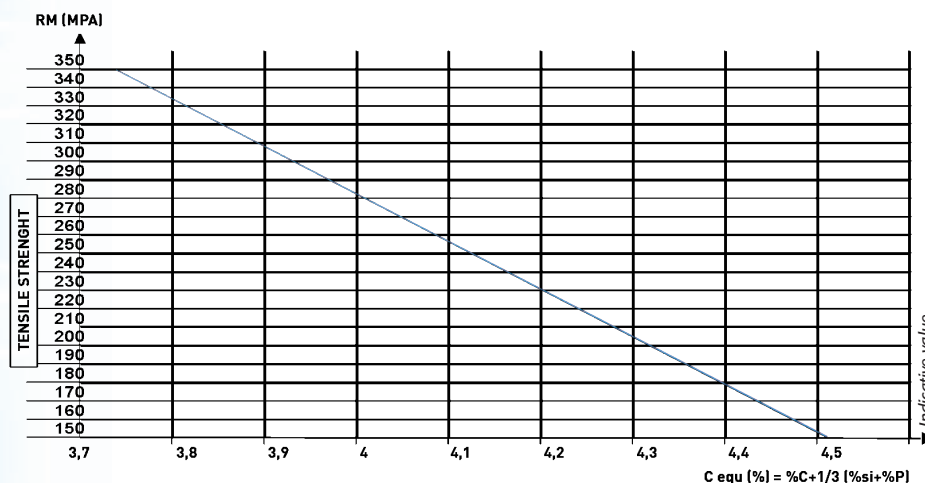
- 10 model range from :
70 kW - 235 kW.
- Saint Roch Hypoeutectic Cast Iron.
- Operates with forced draught oil or gas burners.
- 92-93 % efficiency on net calorific values.
- Operates at low or sliding temperatures.
- Resistant to condensation.
- 6 bar working pressure.
- Economizer.
- Refractory corde between elements.
- Ideal for collective applications (Ecogroupage).
- Wide range of optional control panels.
- Economic/Energy Saving/Eco-Friendly.
- 10 Year Guarantee.



- 1 Control panel
- 2 Stoved sheet steel jacket. Easy assembly
- 3 Flame inspection hole with chamber pressure measurement
- 4 Burner door opening to right or left factory bored on request
- 5 Door insulation 30 mm ceramic fibre and 30 mm glass fibre
- 6 2x50 mm high density glass wool insulation on boiler body and casing
- 7 Horizontal cleaning traps front and rear providing access to heat exchange surfaces
- 8 Cast iron boiler body
- 9 Ø 50x60 flange for sludge drain

OPTIMAJOR PLUS

Saint Roch Hypoeutectic Grey Cast Iron



The Saint Roch Cast Iron makes the ideal compromise between tensile strength and Brinell Hardness. It provides optimal heat storage and transfer with its fine and regular graphite repartition.

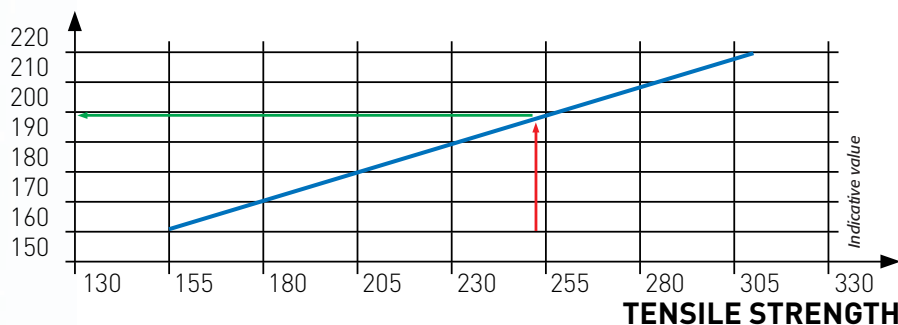
HYPOEUTECTIC GREY CAST-IRON FLAKE GRAPHITE

- HIGH SI CONTENT
 - Homogeneous fine flake graphite distribution.
 - Pearlite-**ferrite** structure
- LOW PHOSPHOR CONTENT
 - Excellent moulding capacity.
 - **Less production of steatite** (fragility of the cast-iron)
 - Excellent heat transmission
 - Water corrosion resistant (Pearlite structure)
 - High mechanical strength
 - Excellent thermal shocks resistance



Flake graphite

Hb (Brinell hardness)

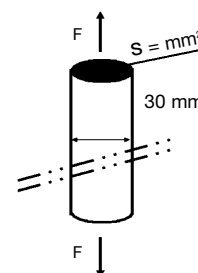


TENSILE STRENGTH $\sigma_t = \frac{F}{S}$

	ρ_t	ρ_s
GG 20	20 kg/mm ²	196 N/mm ²
GG 25	25 kg/mm ²	245 N/mm ²
Saint Roch	24,36 kg/mm ²	238,6 N/mm ²

Indicative value

Indicative value



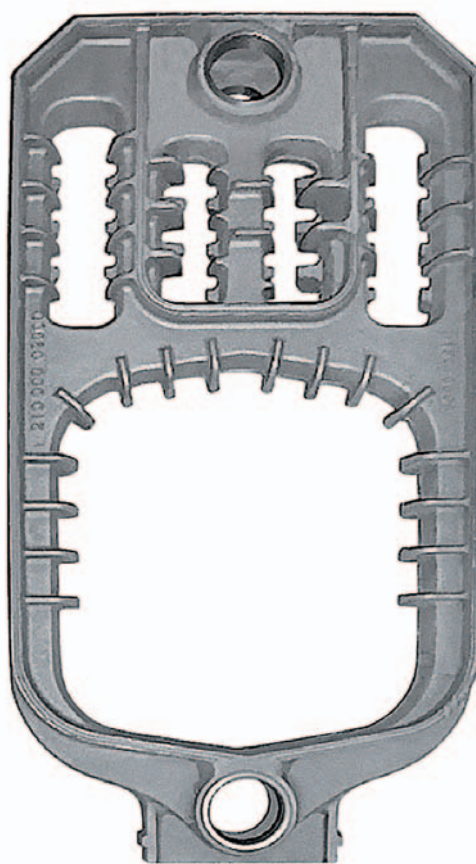
Higher Cast-Iron thickness

The higher "s" the higher F

OPTIMAJOR PLUS

State of the Art Element Engineering

The heating elements are engineered to ensure high efficiency and boiler safety. The combustion chamber is equipped with fins ensuring exposure to burner heat, preventing the formation of dangerous inner stresses and reducing noise levels.

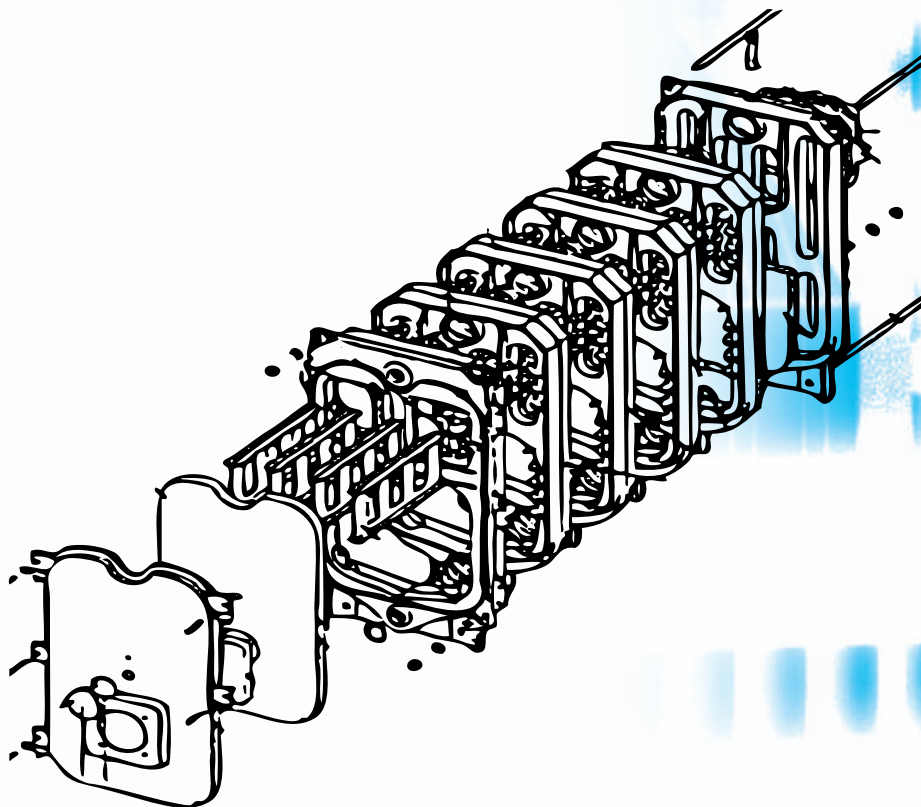


The elements are designed with grooves on both sides, where a refractory cord is fitted.

The refractory cord adapts to the expansion and shrinking of the heating elements.

ECONOMIZING SYSTEM

The Optimajor Plus is equipped with an economizing system to ensure higher efficiency and lower energy consumption.



OPTIMAJOR PLUS

TRIPLE INSULATION SYSTEM

100 mm thick high density glass wool covering the cast iron body. The combustion chamber door is insulated with 30 mm Ceramic fiber and 30 mm glass wool. Inter-element insulation provided by the refractory cords fitted between the elements. The triple insulation system prevents smoke leakage and heat losses, increasing boiler efficiency.

LOW TEMPERATURE

Thanks to the condensation resistant Saint Roch Cast Iron, the Optimajor Plus can operate at low and sliding temperatures.

92-93 % EFFICIENCY

The Optimajor Plus has 92-93 % efficiency on net calorific values.

EASY MAINTENANCE

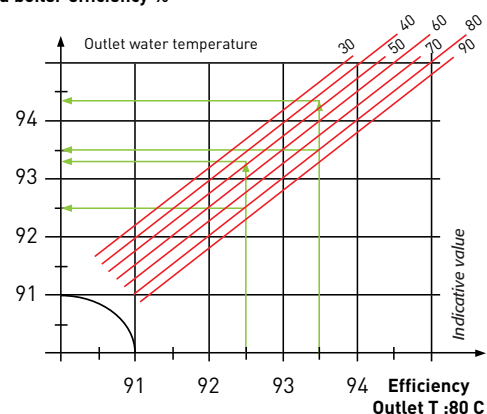
The Optimajor Plus is designed with a hinged door that pivots left and right allowing complete access to the entire boiler body which makes cleaning the boiler such an easy task.

OPTIMAJOR PLUS

Model	Heat Power (kW)	Pressure (mbar)	ΔT° flue °C	Efficiency %
5	70	0.15	229	90.6
6	94	0.24	241	90.1
7	111	0.30	237	90.3
8	129	0.37	236	90.3
9	146	0.43	233	90.4
10	163	0.49	231	90.5
11	180	0.56	230	90.6
12	198	0.63	230	90.6
13	216	0.71	229	90.6
14	235	0.79	230	90.6

Indicative value

Corrected boiler efficiency %



OPTIMAJOR PLUS

Regulators

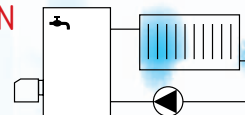
GTC 0

ELECTRONIC REGULATOR FOR DHW PRODUCTION

- Pilot burner and pumps - DHW priority
- Pumps temporisation - Antifreeze function.

DELIVERY : - Module GTC-0 - Sensor boiler and tank - Connection kit.

OPTIONS : - Analogue clock - Wall box.



CATEGORY A

E9-0300

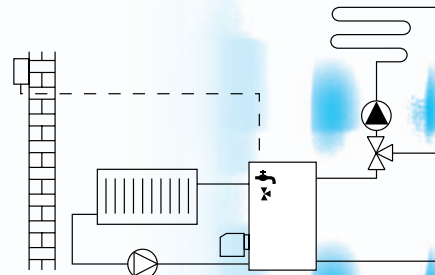
DIGITAL CLIMATIC CONTROL

- Control of 1 direct circuit and 1 mixing circuit
- DHW production - Pumps temporisation
- Antifreeze function - PC connection (optical port).

DELIVERY :

- Module E9-0300 - Exterior boiler and flow sensor
- Connection kit.

OPTIONS : - Room T° controller.



CATEGORY A

E9-0631

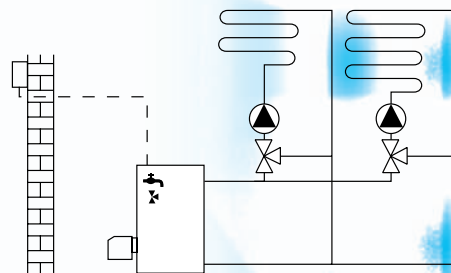
DIGITAL CLIMATIC CONTROL

- Control 2 step burner or cascade of 2 boilers
- Control 2 mixing circuits - Hot water priority
- CAN-bus connection - PC connection (optical port)
- Antifreeze function.

DELIVERY : - Module E9-0631

- Exterior and boiler sensor, 2 x flow sensor, hot water tank sensor - Connection kit.

OPTIONS : - Long distance control box FBR2 or BM8
- E9-1121 (CAN-bus)
Telecommunication with "confort soft" by modem.



CATEGORY A

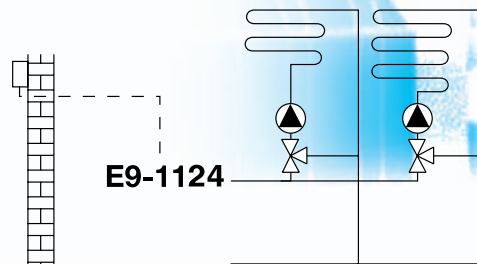
E9-1124

DIGITAL CLIMATIC CONTROL

- Control of 2 mixing circuits - Possibility to connect 6 modules via CAN-bus : E9-0631, E9-4401
- CAN-bus connection - PC connection (optical port)
- Antifreeze function.

DELIVERY : - E9-1124 - 2 T° sensor.

OPTIONS : - Room T° controller FBR2 or BM8 CAN-bus
- Telecommunication with "confort soft" by modem.



CATEGORY A

E8-4401

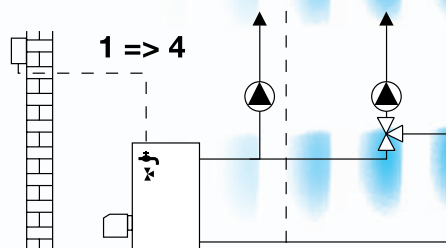
DIGITAL CLIMATIC CONTROL FOR CASCADE

- Cascade up to 4 boilers - 1 direct and 1 mixing circuit
- DHW production & distribution - CAN-bus connection
- PC connection (optical port) - Antifreeze function.

DELIVERY : (without probes)

- E8-4401.

OPTIONS : - Sensor in function of configuration :
outdoor, boiler, DHWT
- Room T° controller FBR2 or BM8 CAN-bus
- E9-1124 - Telecommunication with "confort soft" by modem.



CATEGORY A



OPTIMAJOR PLUS

Ecogroupage

The collector is adapted to the individual power of each boiler and not to the total power installed. The fractioning of the power leads to the separate start of each boiler according to demand.

The load on each boiler being a maximum, the operating efficiency remains at its optimum level. Automatic control makes possible the adaptation of supplied power to that demanded. Saint Roch boilers operate at very low temperature, making possible direct production at a desired temperature without a mixing valve.



ECOGROUPAGE OIL EQUIPMENT

- Gas collector
- Hydraulic collector
- Electric panel with regulation (optional)
- 2 valves of 5/4 inches (per boiler)
- 1 pump + diaphragm (per boiler)
- Accessories to connect boiler and collector.

WARRANTY

Manufacturer's warranty on cast-iron blocks and control unit.

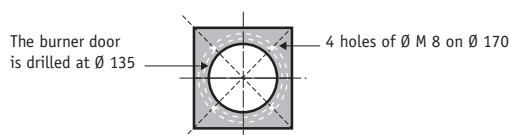
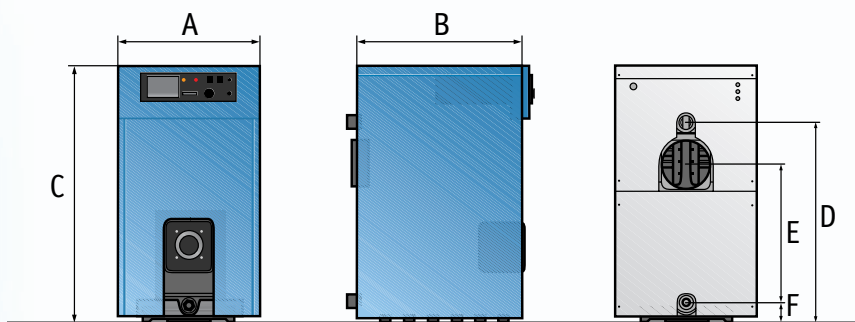


Model		Total power, (kW)	Collector outlet, (mm-")	Smoke outlet, (mm)
2 x Optimajor Plus 7	2 x 111	222	66-76 2" 1/2	200
2 x Optimajor Plus 8	2 x 129	258	66-76 2" 1/2	250
2 x Optimajor Plus 9	2 x 146	292	66-76 2" 1/2	250
2 x Optimajor Plus 10	2 x 163	326	80-90 3"	250
2 x Optimajor Plus 11	2 x 180	360	80-90 3"	250
2 x Optimajor Plus 12	2 x 198	396	80-90 3"	250
2 x Optimajor Plus 13	2 x 216	432	90-102 3" 1/2	250
2 x Optimajor Plus 14	2 x 235	470	90-102 3" 1/2	250
3 x Optimajor Plus 7	3 x 111	333	80-90 3"	250
3 x Optimajor Plus 8	3 x 129	387	80-90 3"	300
3 x Optimajor Plus 9	3 x 146	438	90-102 3" 1/2	300
3 x Optimajor Plus 10	3 x 163	489	90-102 3" 1/2	355
3 x Optimajor Plus 11	3 x 180	540	90-102 3" 1/2	250
3 x Optimajor Plus 12	3 x 198	594	104-114,5 4"	300
3 x Optimajor Plus 13	3 x 216	648	104-114,5 4"	300
3 x Optimajor Plus 14	3 x 235	705	104-114,5 4"	355

Indicative value

OPTIMAJOR PLUS

Technical data



Model	5	6	7	8	9	10	11	12	13	14
Heat output, kW	70	94	111	129	146	163	180	198	216	235
Input power, kW	77	103	122	142	160	180	198	218	236	257
Working pressure, Bar	6	6	6	6	6	6	6	6	6	6
Maximum working temperature, C	100	100	100	100	100	100	100	100	100	100
Water capacity, liters	40	47,5	55	62,5	70	77,5	85	92,5	100	107,5
Efficiency 100%	92,7	93	92,7	92,6	93	92,3	92,7	92,6	93,3	93,2
Efficiency 100% (with 2 economizers)	90,9	91,2	90,9	90,8	91,2	90,5	90,9	90,8	91,5	91,4
Flue gas side load loss, mbar	0,08	0,11	0,15	0,2	0,27	0,36	0,44	0,55	0,67	0,81
Water side loss, mbar	1,7	2,7	3,9	5,3	6,9	8,7	10,7	12,9	15,3	17,9
Ø Heating supply/return	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Ø Flue outlet, mm	200	200	200	200	200	200	200	200	200	200
Numbers of sections	5	6	7	8	9	10	11	12	13	14
Dimensions A - Width	626	626	626	626	626	626	626	626	626	626
in mm B - Depth	731	731	937	937	1143	1143	1349	1349	1555	1555
C - Height	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110
Recommended burners	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone
Shipping weight, kg	347	397	448	498	549	599	650	700	751	801
Domestic hot water option (GTC 0)	•	•	•	•	•	•	•	•	•	•
Climate control and priority hot water	•	•	•	•	•	•	•	•	•	•

Indicative value

Your distributor



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