

COMMODORE SUPERIOR



The Commodore boiler satisfies a large number of industrial and collective applications. It is tough and has a cast iron combustion chamber with a 10 years guarantee.

The Commodore is economic and can be equipped with a forced draught oil or gas burner.

Ideal for building up an Ecogroup cell and operates at sliding temperature.

200 kW - 595 kW



Saint Roch

The warmth of your life

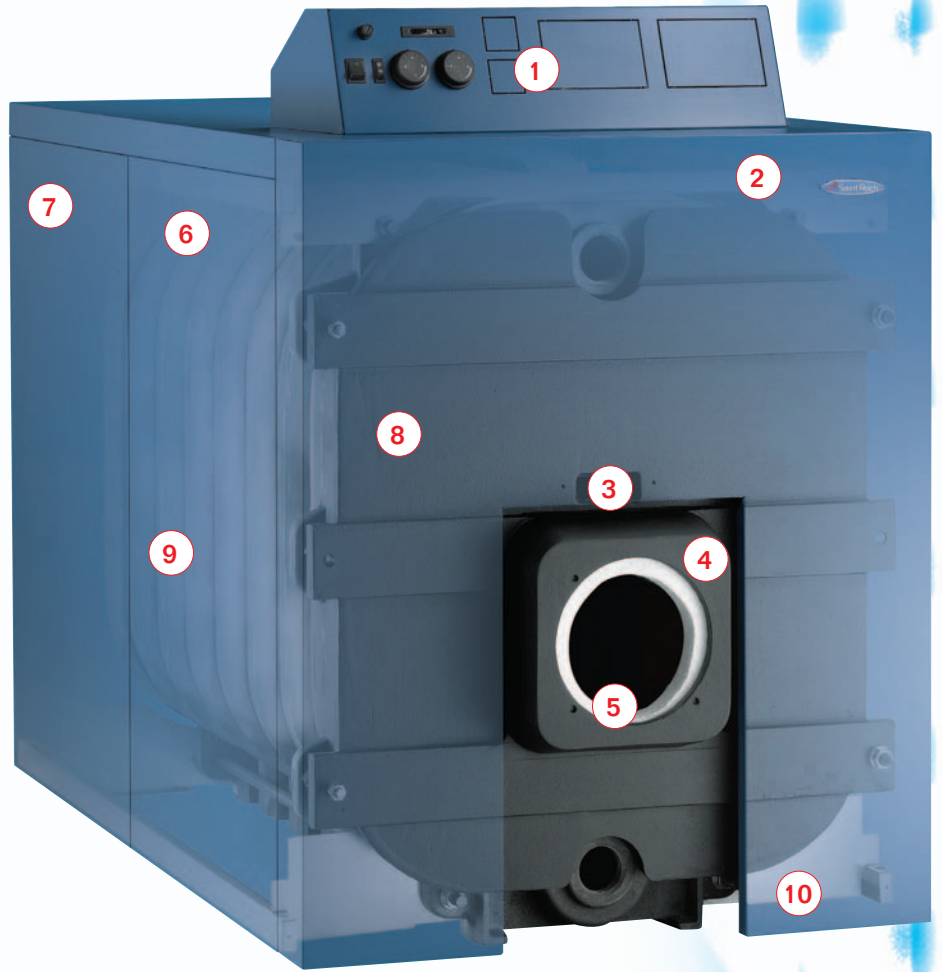


COMMODORE SUPERIOR

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.

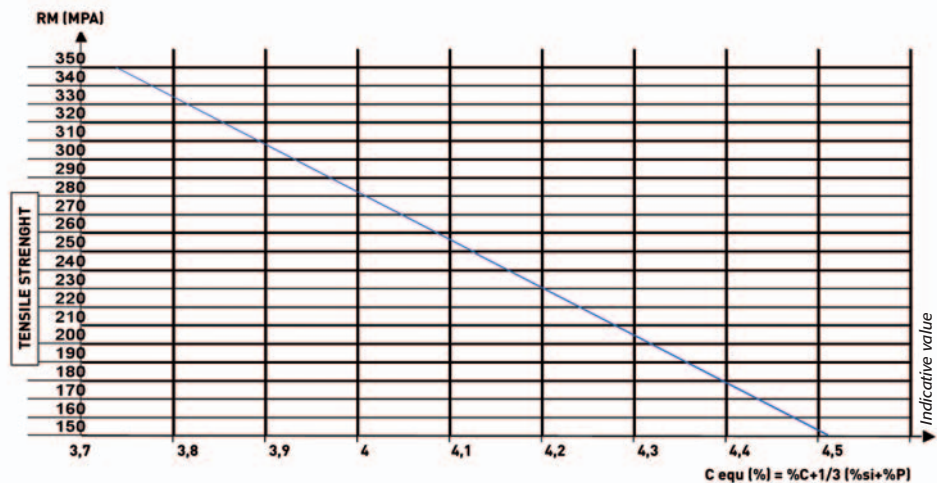
- 10 model range from : 200 kW - 595 kW.
- Saint Roch Hypoeutectic Cast Iron.
- Operates with oil or gas forced draught burners.
- 92-93 % efficiency on net calorific values.
- Operates at low or sliding temperatures.
- Resistant to condensation.
- 6 bar working pressure.
- 5 pass smoke cycle.
- Refractory 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 with thermometer and 2 boiler thermostats
- 2 Stoved sheet steel jacket. Easy assembly
- 3 Flame inspection hole with chamber pressure measurement
- 4 Burner door opening to right or left
- 5 Door insulation 30 mm ceramic fibre and 100 mm glass fibre
- 6 2x50 mm high density glass wool insulation on boiler body and casing
- 7 Welded outlet and return flanges PN16 Ø 125 with sensor casing for monitoring sensor
- 8 Horizontal cleaning traps front and rear providing access to heat exchange surfaces
- 9 Cast iron boiler body
- 10 Ø 50x60 flange for sludge drain

COMMODORE SUPERIOR

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.

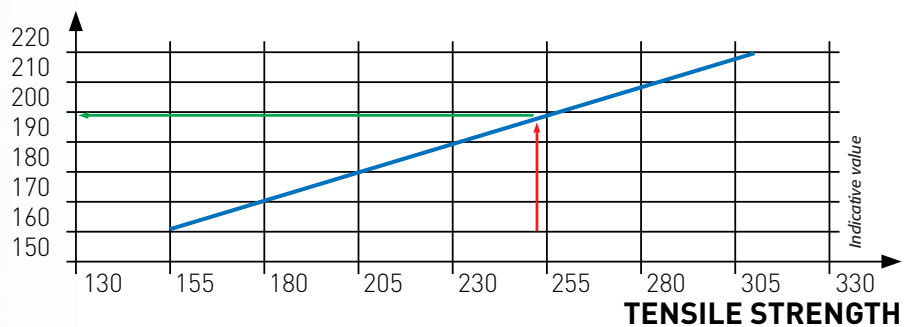
HYPOEUTECTIC GREY CAST-IRON FLAKE GRAPHITE

- HIGH SI CONTENT
 - Homogeneous fine flake graphite distribution.
 - Pearlite-**ferrite** structure
- LOW PHOSFOR 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)

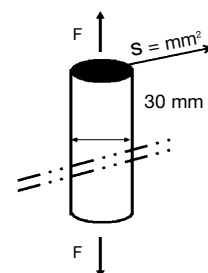


TENSILE STRENGTH $\sigma_t = \frac{F}{S}$

	ρ_t	ρ_t
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

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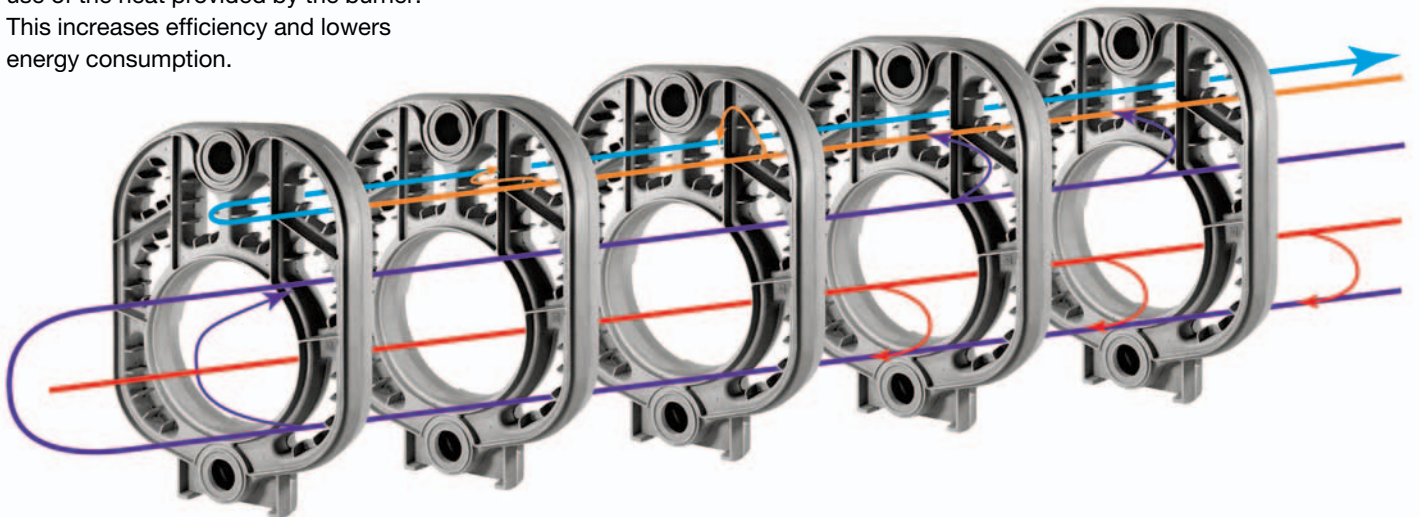
State of the Art Element Engineering

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



5 PASS SMOKE CYCLE

The elements are designed to form a smoke cycle of five complete horizontal passes along the boiler body making full use of the heat provided by the burner. This increases efficiency and lowers energy consumption.



The elements are designed with ridges on one side and grooves on the other, where a refractory cord is fitted. The refractory cord adapts to the expansion and shrinking of the heating elements.

A 25 mm cord covered with butyl rubber is fixed to the boiler's door. Those refractory cords guarantee a 100 % gas tight seal.

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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 100 mm glasswool. 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 Commodore Superior can operate at low and sliding temperatures.

92-93 % EFFICIENCY

The Commodore Superior has 92-93 % efficiency on net calorific values.

EASY MAINTENANCE

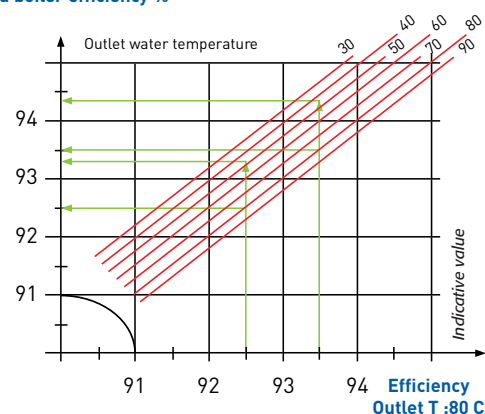
The Commodore Superior is designed with a hinged door that pivots left and right allowing complete access to the entire boiler body which makes cleaning the boiler such an easy task. Only horizontal cleaning is required.

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Model	Heat Power (kW)	Pressure (mbar)	ΔT° flue $^\circ\text{C}$	Efficiency %
7	200	4.4	185	91.9
8	245	4.9	186	92.1
9	295	3.7	193	91.7
10	349	4.4	199	91.5
11	390	4.7	203	91.5
12	437	6.4	198	91.3
13	480	6.7	208	91.3
14	525	8.3	200	91.3
15	560	9.0	191	91.1
16	595	8.6	197	91.2

Indicative value

Corrected boiler efficiency %



COMMODORE SUPERIOR

Regulators

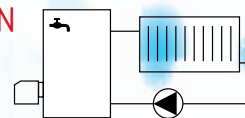
GTC 0

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

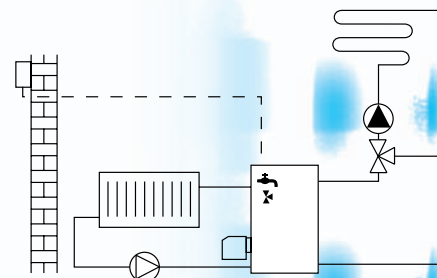
DIGITAL CLIMATIC CONTROL

- 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

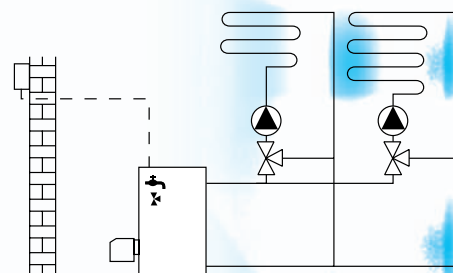
DIGITAL CLIMATIC CONTROL

- 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



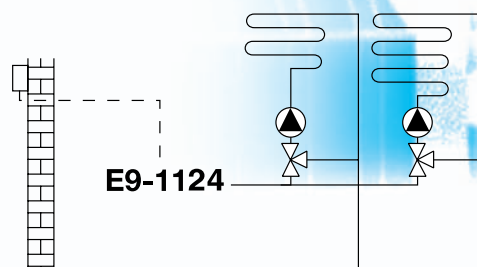
E9-1124

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

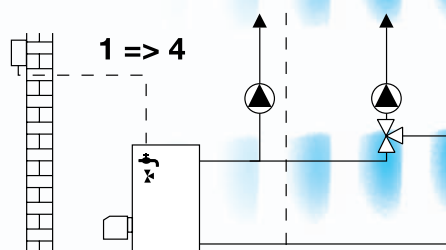
DIGITAL CLIMATIC CONTROL FOR CASCADE

- 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



COMMODORE SUPERIOR

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 demand.

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.

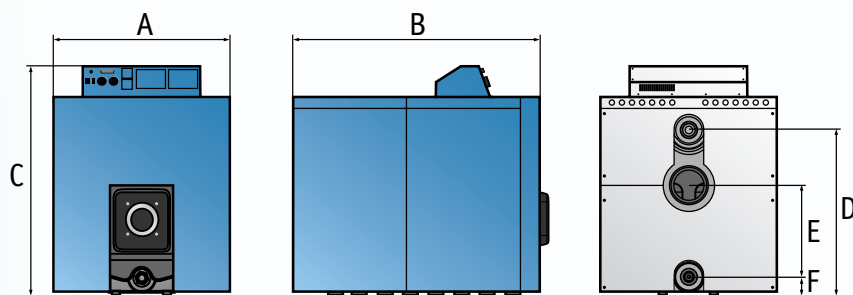


Model		Total power, (kW)	Collector outlet, (mm-")	Smoke outlet, (mm)
2 commodore 7	2 x 200	400	90 - 102 3" 1/2	355
2 commodore 8	2 x 245	490	90 - 102 3" 1/2	400
2 commodore 9	2 x 295	590	104 - 113 4"	400
2 commodore 10	2 x 349	698	104 - 113 4"	400
2 commodore 11	2 x 390	780	119 - 127 4" 1/2	450
2 commodore 12	2 x 427	874	128 - 139 5"	500
2 commodore 13	2 x 480	960	129 - 139 5"	560
2 commodore 14	2 x 525	1050	152 - 168 6"	560
2 commodore 15	2 x 560	1120	152 - 168 6"	630
2 commodore 16	2 x 595	1190	152 - 168 6"	630
3 commodore 7	3 x 200	600	104 - 113 4"	400
3 commodore 8	3 x 245	735	119 - 127 4" 1/2	450
3 commodore 9	3 x 295	885	128 - 139 5"	500
3 commodore 10	3 x 349	1047	152 - 168 6"	560
3 commodore 11	3 x 390	1170	152 - 168 6"	630
3 commodore 12	3 x 437	1311	152 - 168 6"	630
3 commodore 13	3 x 480	1440	152 - 168 6"	630
3 commodore 14	3 x 525	1575	152 - 168 6"	630
3 commodore 15	3 x 560	1680	178 - 194 7"	710
3 commodore 16	3 x 595	1785	178 - 194 7"	710

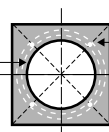
Indicative value

COMMODORE SUPERIOR

Technical data



The burner door is drilled at $\varnothing 165$



4 \varnothing M 8 on \varnothing 200 - 280

Model	7	8	9	10	11	12	13	14	15	16
Heat output, kW	200	245	295	349	390	437	480	525	560	595
Input power, kW	220	270	325	384	430	480	528	578	616	655
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	115	130	145	160	175	190	205	220	235	250
Efficiency 100% load	92,7	92,5	92,5	92,6	92,4	92,8	92,7	92,6	92,7	92,6
Furnace pressure, mbar	2,90	3,50	2,20	2,60	3,70	3,50	3,60	4,40	4,60	4,60
Δt flue - T ambience, C	156	160	156	161	160	152	162	153	141	150
Load losses water side Δt 15 C, mbar	4,5	7,1	8,5	14	16,7	19,5	22,6	26,7	29,6	35
\varnothing Heating supply/return	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
\varnothing Flue outlet, mm	180	180	180	180	180	180	180	180	180	180
Numbers of sections	7	8	9	10	11	12	13	14	15	16
Dimensions in mm										
A - Width	900	900	900	900	900	900	900	900	900	900
B - Depth	1300	1300	1560	1560	1820	1820	2080	2080	2340	2340
C - Height	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165
D - Position of heating supply centre line	838	838	838	838	838	838	838	838	838	838
E - Position of flue outlet centre line	558	558	558	558	558	558	558	558	558	558
F - Position of heating return centre line	88	88	88	88	88	88	88	88	88	88
Recommended burners	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone	Bentone
Shipping weight, kg	708	803	898	983	1066	1166	1249	1339	1432	1522

Indicative value

Your distributor



Saint Roch
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B 5660 COUVIN
BELGIUM
Tel : 060/34 56 51
Fax : 060/34 62 28 (commercial)
060/34 56 58 (administrative)