

# Junior Green High Efficiency Condensing Boilers

#### **Residential Heating**

EFFICIENCY \*\*\*\* according to European Directive EEC 92/42





## Junior Green



- JUNIOR GREEN is a wall hung condensing boiler of compact dimensions and low weight, that enable its installation almost everywhere in the home. It is available in 2 versions (combi and heating-only) with an output of 25kW in DHW, 20kW in CH.
- It reduces the running costs by up to 35% compared to a conventional boiler, helping to safeguard the environment: the pre-mix burner and the condensing aluminium heat exchanger provide \*\*\*\* efficiency according to European Directive EEC 92/42 and Class 5 of NOx (the highest).
- JUNIOR GREEN is range rated approved: its maximum power in CH can be easily adapted to the real needs of the system.

- It can be converted to LPG with a specific kit and can be linked to a RF wireless programmable room thermostat to maximize the efficiency while maintaining optimum room temperature.
- JUNIOR GREEN is standard equipped with built-in frost protection and hot water Survivor function - if the hot water thermistor fails, the supply of warm water will be ensured at 55°C via the primary NTC.
- An extensive range of accessories enables JUNIOR GREEN to adapt to every kind of system and installation (including floor heating systems).

### Smart technology

#### JUNIOR GREEN 25kW layout

- 1 Flue gas analysis plug
- 2 Silencer
- 3 Fan + mixer
- 4 Condensing aluminium heat exchanger
- 5 Circulator with anti-block function cycles
- 6 New cyclonic effect automatic air vent
- 7 Expansion vessel (8L)
- 8 DHW heat exchanger (only for combi model)
- 9 Siphon



### User-friendly control panel

The JUNIOR GREEN control panel is extremely functional and easy to use, allowing a simple set-up for your comfort. Two **ergonomic knobs** control the main functions of the boiler, while **three LEDs**  signal boiler operation, diagnostic and the special three-stars sanitary performance. The control panel features also an **easy-toread pressure gauge** for heating circuit. A digital display, combining simplicity and multifunctionality, further provides peace of mind to installer and end-user.



### Range rated

The term **range rated** identifies a product homologated at different levels of heat input and provided with a special feature allowing to precisely adapt the maximum power of the boiler to the thermal needs of the **central heating** system.

With JUNIOR GREEN, Beretta offers the possibility to set the power of your boiler according to the real energy requests of the building through a simple operation during the installation. The fan revolutions number (r.p.m.) will only have to be adjusted and the new set power will be written on a label on the boiler.

Thanks to this feature, JUNIOR GREEN operation is optimized, thus avoiding any gas waste and reducing wear and tear on boiler components.



### S.A.R.A. system

JUNIOR GREEN is equipped with the Beretta patented **S.A.R.A. system** (Automatic Temperature Control), which can be enabled by moving the temperature control knob of the central heating circuit to the "AUTO" sector (between 55°C and 65°C). The **S.A.R.A. system** achieves the best compromise between the average temperature of the radiators and the quickness in reaching the required room temperature, while providing energy and money saving. When there is a continuous demand for heating, JUNIOR GREEN will automatically raise the heating flow temperature twice by 5°C every 20 minutes, in order to heat the home more quickly.

When the heating request has been satisfied, JUNIOR GREEN will switch off automatically till the next heating request. At that point the boiler will start again at the flow temperature originally set.



KEY:

Combi model (CH + DHW); S Room-sealed; **R** Heating Only model; Ionisation flame control.

SPECIFICATIONS AND MODELS		JUNIOR GREEN 25 C.S.I.	JUNIOR GREEN 25 R.S.I.
CH nominal heat input	kW	20,00	20,00
CH nominal heat output (80°-60° C)	kW	19,50	19,50
CH nominal heat output (50°-30° C)	kW	20,84	20,84
CH minimum heat input	kW	5,00	5,00
CH minimum heat output (80°-60° C)	kW	4,91	4,91
CH minimum heat output (50°-30° C)	kW	5,36	5,36
DHW nominal input	kW	25,00	25.00**
DHW maximum output*	kW	25,00	
DHW minimum input	kW	5,00	5,00**
DHW minimum output*	kW	5,00	
Efficiency class according European Directive EEC 92/42		****	****
Efficiency at max nominal output (80°-60° C)	%	97,5	97,5
Efficiency at min output (80°-60° C)	%	98.1	98.1
Efficiency at partial load 30% (47°C return)	%	102,2	102,2
Efficiency at max nominal output (50°-30° C)	%	104,2	104,2
Efficiency at min output (50°-30° C)	%	107,2	107,2
Efficiency at partial load 30% (30°C return)	%	108,9	108.9
NOx class		5	5
Max power consumption	W	110	110
Power supply	V/Hz	230/50	230/50
Electrical protection	IP	X5D	X5D
CENTRAL HEATING		7,65	7,60
Maximum pressure - temperature	bar - °C	3 - 90	3 - 90
Minimum pressure for standard operation	bar	0,25 - 0,45	0,25 - 0,45
Adjustable CH water temperature range	°C	20/45 ÷ 40/80	20/45 ÷ 40/80
CH expansion vessel pre-charge / Capacity	bar/l	1/8	1/8
DHW			<u> </u>
Maximum - minimum pressure	bar	6 - 0,15	
DHW production ∆T=25°C	l/min	14,3	
Hot water minimum flow rate	l/min	2	
Adjustable hot water temperature range	°C	37-60	37-60**
CONNECTIONS			
CH flow - return / Gas	Ø	3/4"	3/4"
DHW inlet - outlet	Ø	1/2"	3/4"**
FLUE PIPES AND AIR INTAKE			
Max length (including 90° bend) for concentric 60-100 mm	m	5,85	5,85
Max length (including 90° bend) for concentric 80-125 mm	m	15,3	15,3
Max length for twin 80+80 mm	m	45+45	45+45
DIMENSIONS, WEIGTH, GAS			
Boiler dimensions (HxWxD)	mm	715x405x250	715x405x250
Net weight	kg	27	26
Available gas versions		NG/LPG	NG***

\* average among the different functioning conditions in DHW

\*\* available for an external tank \*\*\*LPG version available with separate kit

Beretta is a Riello Group brand

