

RESIDENCE AQUA

NEW



Wall-hung condensing boilers with stainless steel DHW tank

RESIDENCE AQUA

RIELLO INTRODUCES RESIDENCE AQUA, THE CONDENSING BOILER EQUIPPED WITH A 30-LITER BI-TANK DHW TANK DESIGNED TO OFFER EFFICIENCY AND ENERGY SAVINGS.

Thanks to the new type of DHW tank, RESIDENCE AQUA 25 BIS stands out for being **more compact and efficient than previous Riello boiler ranges with a built-in** DHW tank.

Instead of a single tank, RESIDENCE AQUA features a **30-liter** stainless steel bi-tank that not only saves space but also improves energy efficiency.

RESIDENCE AQUA **also** offers excellent comfort in the heating profile, thanks to an efficient stainless steel heat exchanger with pneumatic combustion and wide 1:8 modulation.

The new boiler, in line with Riello's new generation products, also has an eye on the environment. In addition to having **extremely low NOx emissions, which place it in class 6** according to European standards, RESIDENCE AQUA is suitable to operate with blends of **natural gas and hydrogen blends of up to 20%**, a first important contribution to the decarbonization process started by the European Union.

Finally, the aesthetics with pleasant and essential lines, combined with the simplicity of use, allows the product to be **easily integrated into different residential contexts**, both in new buildings and replacement.



FOR A
SUSTAINABLE
FUTURE



STAINLESS STEEL
EXCHANGER



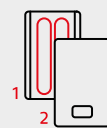
30L STAINLESS STEEL
BI-TANK



LOW NOx EMISSIONS
(CLASS 6)



HOT WATER
AT A STABLE TEMPERATURE



EASY INSTALLATION
IN TWO STEPS



SIMPLIFIED MAINTENANCE
WITH FRONT ACCESS



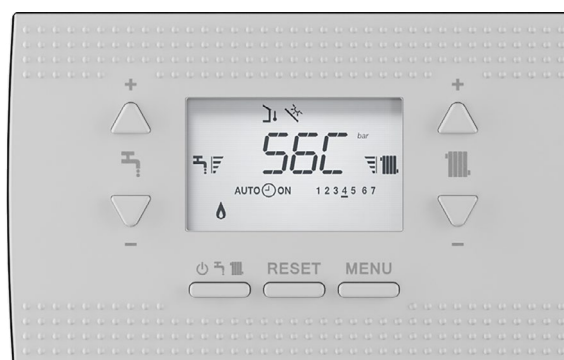
COMPACT
DIMENSIONS

RESIDENCE AQUA 25 BIS
is fuelled by **natural gas**.
It is available the **conversion kit** for **propane** and **propane air**.



Heating water temperature
adjustment +/-

DHW temperature
adjustment +/-



Operating status
of the boiler
(OFF, SUMMER and WINTER)

Resetting interruption
and/or fault alarm status,
and air venting cycle

Access to info menu
and confirmation of
set parameter values

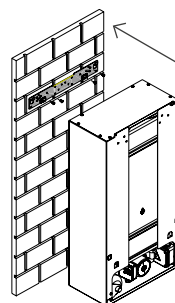
TECHNOLOGY AT THE SERVICE OF COMFORT

RESIDENCE AQUA consists of a system made of two elements, the boiler and the DHW bi-tank, extremely easy to install, which can be summarized in **TWO STEPS**: mounting on the wall of the DHW tank and mounting the boiler on the DHW tank.

NEW 30 L DHW BI-TANK WITH ADVANCED ELECTRONICS

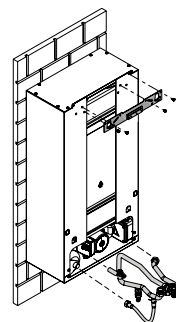


STEP 1: MOUNTING OF THE WALL-HUNG DHW TANK



A

After fixing the template, the mounting of the DHW bi-tank on the wall is carried out



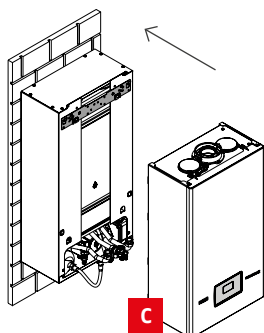
B

After fixing the boiler template into the DHW bi-tank, the installation of the hydraulic and flow switch kits (available as accessories) is carried out

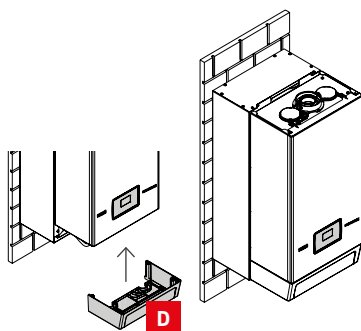
- The DHW BI-TANK (also called dossier), achieves **the same performance as the DHW tank in the previous 45-liter Riello START AQUA CONDENS model, with more compact dimensions**;
- **possibility to manage the recharge frequency of the DHW tank** through a parameter in the electronics:
 - **Comfort**: for high and frequent filling cycles, if withdrawals are frequent or water volume demand is high;
 - **ECO**: for reduced number of DHW tank filling cycles and consequently higher energy savings;
- **Expansion vessel of the DHW tank**
- **DHW BI-TANK is supplied separately from the boiler.**

STEP 2: MOUNTING OF THE BOILER

After the boiler has been fixed to the template, hydraulic connections are made between the bi-tank, the boiler and also the electrical connection



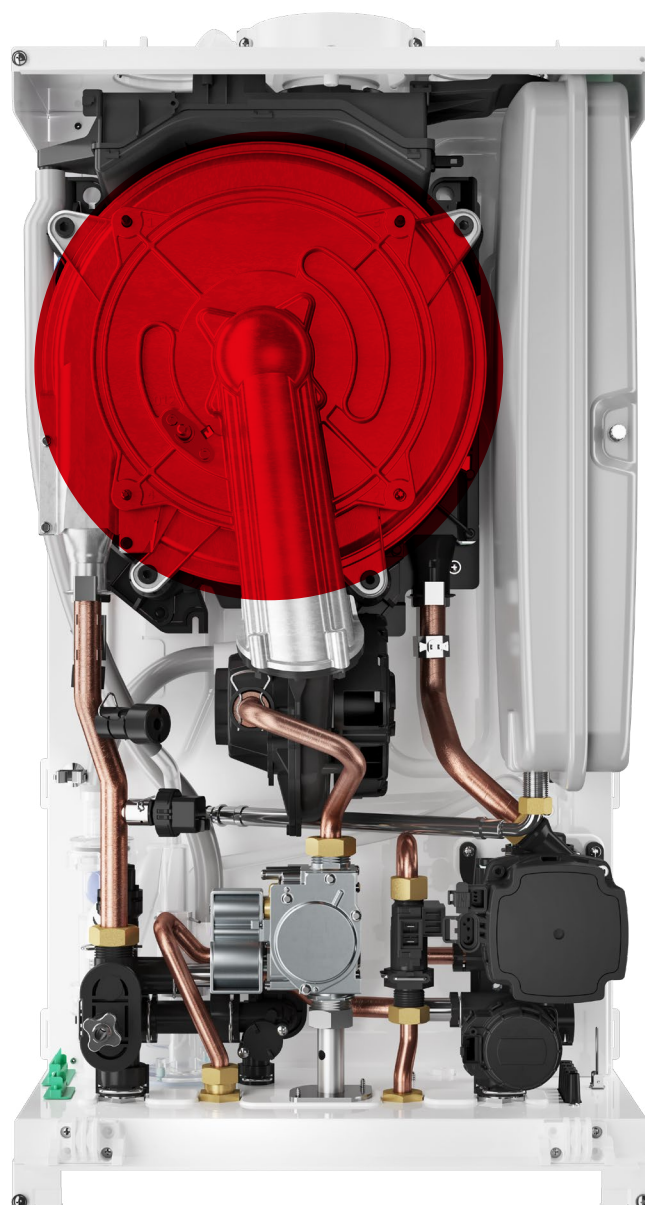
Mounting of the lower fittings cover at the end of the installation



- **New flue gas flange** with quick-tightening safety collar
- **Low emissions:** 6 class (UNI EN 15502)
- **Energy efficiency:** 93%
- 1:8 modulation
- **8 liters expansion vessel**
- **Low consumption modulating pump** ($eei \leq 0,20$), with 6 meters head
- **Silent** operation
- IPX5D electrical protection degree
- Hydraulic group with **DIN connections**
- **Can be matched with Hi, Comfort T100 for remote comfort management**
- **Boiler supplied separately from DHW tank**

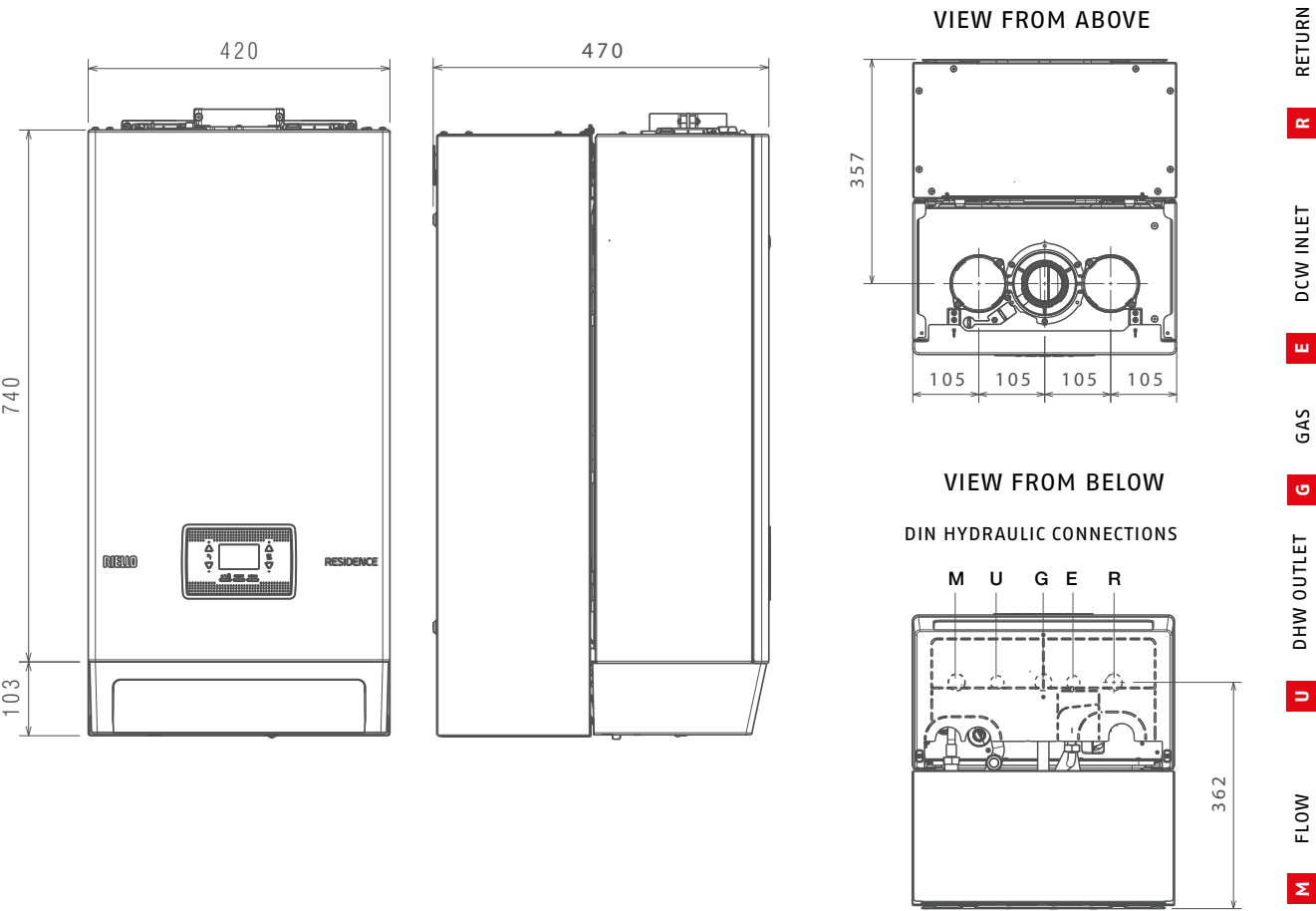
+ 25% heat input* compared to the average Riello boiler with instantaneous domestic hot water production.

CONDENSING BOILER TO BE COMBINED WITH THE BI-TANK

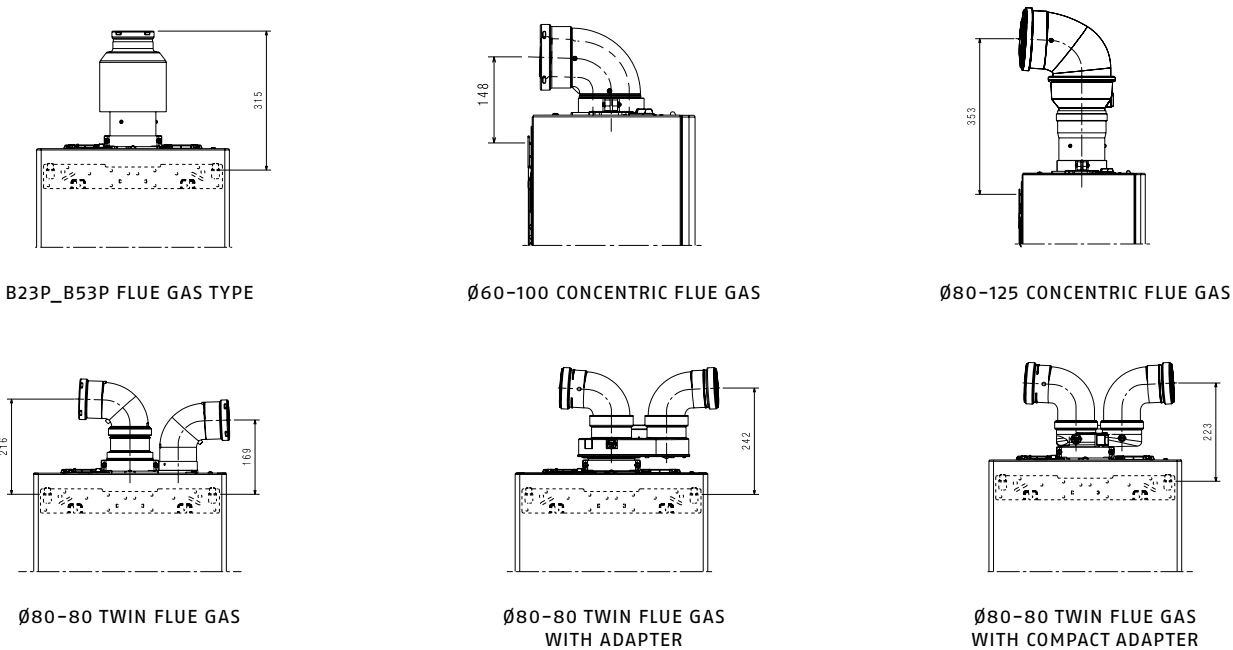


* Internal comparison with Riello instantaneous combi boiler models with the same output.

TECHNICAL DRAWINGS



FLUE GAS SYSTEM TYPES



TECHNICAL DATA

ENERGY LABEL SPECIFICATIONS (according with the ErP Directive)		UoM	RESIDENCE AQUA 25 BIS
Seasonal heating energy efficiency class		D → A+++ (*)	A
DHW Energy efficiency class		F → A+ (**)	A
Rated heat output according to ErP pnominal	pnominal	kW	19
Seasonal heating energy efficiency	ηs	%	93
USEFUL HEAT OUTPUT			
At rated heat output and at high temperature regime (***)	P4	kW	19,4
At 30% rated heat output and at low temperature regime (****)	P1	kW	6,5
USEFUL EFFICIENCY			
At rated heat output and at high temperature regime (***)	η4	%	87,3
At 30% rated heat output and at low temperature regime (****)	η1	%	98,5
AUXILIARY ELECTRICITY CONSUMPTION			
At full load	elmax	W	32
At partial load	elmin	W	12
In Stand-by mode	PSB	W	3
OTHER PARAMETERS			
Heat losses in stand-by mode	Pstby	W	30
Annual energy consumption	QHE	GJ	42
Sound power level, indoors	LWA	dB	50
NOx emissions	NOx	mg/kWh	22
FOR COMBI BOILERS – BOILER WITH DOSSERET			
Declared load profile			XL
Energy efficiency of DHW	ηwh	%	80
Daily electricity consumption	Qelec	kWh	0,286
Daily fuel consumption	Qfuel	kWh	24,268
Annual electricity consumption	AEC	kWh	63
Annual fuel consumption	DCW	GJ	18
OTHER TECHNICAL SPECIFICATIONS			
CH INPUT (max-min)		kW	20 – 3,10
DHW Nominal INPUT (max-min)		kW	25 – 3,10
Supply voltage-Frequency		V-Hz	230-50
Degree of protection		IP	IPX5D
NOx class			6
CH			
Maximum pressure-temperature		bar – °C	3 – 90
Pump: maximum available head (at a flow rate of 1000 l/h)		mbar	340
Membrane expansion vessel		l	8
DHW			
Max pressure		bar	8
DHW production at ΔT= 25°C / 30°C / 35°C		l/min	14,3 / 11,9 / 10,2
Minimum DHW flow rate		l/min	2
GAS, HYDRAULIC CONNECTIONS			
Gas pressure rating (G20-G31)		mbar	20- 37
Heating inlet-outlet/Gas inlet		Ø	3/4"
Domestic water inlet-outlet/Boiler flow-return		Ø	1/2"
WEIGHT			
Net weight of boiler		kg	31
Net weight of the cylinder		kg	18,6
FLUE GAS PIPES AND AIR INTAKE			
Max length for concentric flues (Ø60-100 mm)		m	5,85
Max length for twin flues (Ø80-80 mm)		m	52+52 (A) (B)
VALUES RELATED TO DHW PERFORMANCE WITH DHW TANK IN CASE OF DOSSERET KIT INSTALLATION			
DHW tank type	Ø	Stainless steel	
DHW tank layout	Ø	Vertical	
Heat exchanger layout	Ø	External plates	
Vnom, actual DHW content	l	31	
Domestic hot water temperature selection field	°C	37-60	
Amount of water withdrawal in 10' with minimum ΔT30°C	l	145	
Maximum operating pressure of the boiler	bar	10	
Vbu, non-solar storage volume	l	31	
Specific flow rate according to EN13203-1	l/min	14,5	

(*) The energy efficiency class range of this product category is between D and A+++

(**) The energy efficiency class range of this product category is between F and A+

(***) High temperature regime: 60°C in return and 80°C in flow of the boiler.

(****) Low temperature regime: for condensing boilers 30°C, for low temperature boilers 37°C, for other heating appliances 50°C return temperature.

(A) With standard twin system or with adapter

(B) Up to 33+33 m with compact twin flue gas system

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