Technical Data Sheet

MYNUTE BOILER X

Wall-hung boilers

A Carrier Company

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General introduction

Mynute Boiler X with DHW bi-tank (dosseret)

Mynute Boiler X is the condensing boiler with a 30-litre stainless steel DHW bi-tank storage tank, designed by Beretta with energy savings and efficiency in mind.
Mynute Boiler X is made up of a system that is composed by a 25kW combi boiler and a DHW bi-tank that stands out for its ease of assembly in just two steps: installation of the DHW bi-tank on the wall and the boiler on it.
The primary heat exchanger, made entirely of stainless steel and with frontal accessibility to the combustion chamber, together with the optimised plate exchanger, for the instantaneous production of DHW in periods when the DHW tank is not necessary, ensure maximum efficiency, reliability over time and high comfort.
The compact size and intuitive user interface complete the profile of Mynute Boiler X.

- 25 kW combined boiler with 30-litre stainless steel DHW tank, available with a dedicated code.
- Possibility of managing the boiler reset frequency in Comfort and Eco mode (reduced consumption) through simple electronic parameterisation
- Simple installation in two steps: 1. installation of the DHW tank (dosseret); 2. assembly of the boiler on the DHW tank.
- Primary condensing heat exchanger in stainless steel, efficient, reliable and with front access for easy maintenance and cleaning of the combustion chamber.
- Simple and intuitive digital user interface with backlit LCD display for direct communication via multilingual texts and representative icons.
- Wide modulation range 1:8.
- IPX5D electrical protection rating.
- Hydraulic unit with standard DIN sequence connections.
- Can be matched with the Hi, Comfort T100.
- Designed to operate with mixtures of natural gas and hydrogen, up to a maximum of 20%.
- Boiler models certified to also work with LPG and Propane Air using optional kits available as accessories.

General introduction

Technical data

Description	UM	Mynute Boiler X 25B		
Gas type		G20	G230	G31
Appliance category			II2HY20M3P	
Country of destination			IT	
Appliance type		B23P; B53P; C(10)3; C13,C13x; C33,C33x; C43,C43x; C53,C53x; C63,C63x; C83,C83x; C93,C93x		
HEATING				
Nominal heat input (Hi) (1)	kW		20,00	
Nominal heat output (80÷60°C)	kW		19,40	
Nominal heat output (50÷30°C)	kW		20,92	
Reduced heat input (Hi)	kW	3,10		5,00
Reduced heat output (80÷60°C)	kW	2,94		4,74
Reduced heat output (50÷30°C)	kW	3,04		4,91
DOMESTIC WATER				
Nominal heat input (Hi) (1)	kW		25,00	
Nominal heat output (*)	kW		25,00	
Reduced heat input (Hi)	kW	3,10		5,00
Reduced heat output (*)	kW	3,10		5,00
EFFICIENCY				
Useful efficiency P max (80÷60°C)	%		96,9	
Useful efficiency P min (80÷60°C)	%		94,7	
Useful efficiency Pn max (50÷30°C)	%		104,6	
Useful efficiency Pn min (50÷30°C)	%		98,0	
Useful efficiency 30% (return 30°C)	%		109,1	
Efficiency at Pmedia Range Rated (80÷60°C)(***)	%		97,0	
Efficiency at Pmedia Range Rated 30% (30°C return)(***)	%		109,3	
Chimney losses with burner on (Pn max)	%		2,80	
Chimney losses with burner off	%		0,09	
Casing losses with burner on (Pn max)	%		0,30	
FLUE GAS SYSTEM				
NOx Class - UNI EN 15502			6	
Residual head of concentric flues 0,85 m Ø60-100 mm	Pa		60	
Residual head of twin flues 0,5 m Ø80-80 mm	Pa		180	
Residual head of boiler without pipes and without flange	Pa		186	
ELECTRICAL CHARACTERISTICS				
Electrical power (Pel max heating-Pel max DHW)	W		62-95	
Electrical power of burner P max	W		53	
Electrical power of circulator max	W		42	
Electrical power of circulator min	W		4	
Power supply voltage	V - Hz		230-50	
Protection level	IP		X5D	
HEATING OPERATION				
Maximum pressure	bar		3	
Minimum pressure for standard operation	bar		0,3	
Maximum temperature	°C		90	
Heating H_2O temperature selection range	°C		20/45 - 40/80	
Pump: max. head available to the system	mbar		340	
at the flow rate of	l/h		1000	
Membrane expansion vessel	l		8	
Expansion vessel pre-load	bar		1	

General introduction

Description	UM	Mynute Boiler X 25B		
Gas type		**G20**	**G230**	**G31**
DOMESTIC HOT WATER OPERATION - INSTANTANEOUS VERSION				
Maximum pressure	bar		8	
Minimum pressure	bar		0,5	
Quantity of hot water with Δt 25°C	l/min		14,3	
with Δt 30°C	l/min		11,9	
with Δt 35°C	l/min		10,2	
Minimum domestic hot water flow rate	l/min		2	
Domestic H_2O temperature selection range	°C		37/60	
Flow regulator	l/min		10	
AIR AND FLUE GAS FLOW RATES				
Gas type		**G20**	**G230**	**G31**
Heating				
Air flow rate	Nm³/h	24,3	24,1	24,8
Flue gas flow rate	Nm³/h	26,3	26,4	26,4
Mass flow rate of flue gas (max-min)	g/s	9,1-1,4	9,3-1,4	9,3-2,3
Domestic				
Air flow rate	Nm³/h	30,4	30,1	31,0
Flue gas flow rate	Nm³/h	32,9	33,1	32,9
Mass flow rate of flue gas (max-min)	g/s	11,4-1,4	11,7-1,4	11,6-2,3
EMISSION VALUES AT MAX AND MIN FLOW RATE WITH GAS (**)				
Gas type		**G20**	**G230**	**G31**
Maximum				
CO s.a. lower than	p.p.m	140	80	140
CO_2 (***)	%	9,1	10,1	10,1
NOx s.a. lower than	p.p.m	50	50	40
Flues temperature	°C	77	78	81
Minimum				
CO s.a. lower than	p.p.m	10	10	30
CO_2 (***)	%	9,1	10,1	10,1
NOx s.a. lower than	p.p.m	30	50	40
Flues temperature	°C	64	61	63

(*) Average value between the various operating conditions in domestic hot water.
(**) Test performed with concentric flues Ø60-100 mm - length 0,85 m - water temperature 80÷60°C.
(***) Values certified by a third party for the Range Rated models.
(1) Mynute Boiler X 25B, the heat output with G20Y20 gas (12HY20) undergoes a reduction: Nominal heat output in heating = 18 kW Nominal heat output in domestic hot water = 23kW. The data expressed must not be used to certify the system; for certification, the data indicated in the "System Booklet" measured at the time of first ignition must be used.

Values relating to ACS performance with boiler in case of installation of dosseret kit (available on request)

DHW tank type	Ø	Stainless Steel
DHW tank layout	Ø	Vertical
Exchanger layout	Ø	external with plates
Vnom, actual domestic hot water content	**l**	**31**
Domestic hot water temperature selection range	°C	37-60
Quantity of water drawn in 10' with minimum ΔT 30°C	l	145
Maximum boiler operating pressure	bar	10
Vbu, non-solar storage volume	L	31
Specific flow rate according to EN 13203-1	l/min	14.5

General introduction

ErP Technical Data Table

Parameter	Symbol	Unit	Mynute Boiler X 25B
Seasonal space heating energy efficiency class	-	D → A+++ (1)	A
Water heating energy efficiency class (***)	-	F → A+ (1)	A
Nominal output	Pnominal	kW	19
Seasonal space heating energy efficiency	ηs	%	93
Useful heat output			
At nominal heat output and high temperature regime (*)	P4	kW	19,4
At 30% of nominal heat output and low temperature regime (**)	P1	kW	6,5
Efficiency			
At nominal heat output and high temperature regime (*)	η4	%	87,3
At 30% of nominal heat output and low temperature regime (**)	η1	%	98,5
Auxiliary power consumption			
At full load	elmax	W	32,0
At partial load	elmin	W	12,0
In standby mode	PSB	W	3,0
Other parameters			
Heat losses in standby mode	Pstby	W	30,0
Pilot flame energy consumption	Pign	W	-
Annual energy consumption	QHE	GJ	42
Indoor sound power level	LWA	dB	50
Nitrogen oxide emissions	NOx	mg/kWh	22
Domestic hot water			
Declared load profile			XL
Water heating energy efficiency	ηwh	%	84
Daily electricity consumption	Qelec	kWh	0,133
Daily fuel consumption	Qfuel	kWh	23,183
Annual electricity consumption	AEC	kWh	29
Annual fuel consumption	AFC	GJ	18

(1) The energy efficiency class range of this product category in HEATING is between D and A+++ / in DHW is between F and A+*
(*) High temperature regime: 60°C return and 80°C boiler flow.
(**) Low temperature regime: for condensing boilers 30°C, for low temperature boilers 37°C, for other heating appliances 50°C return temperature.

For combined heating appliances: BOILER WITH DOSSERET

Load profile			**XL**
Daily electricity consumption	Qelec	kW/h	0,286
Annual electricity consumption	AEC	kWh	63
Water heating energy efficiency	**ηwh**	**%**	**80**
Daily fuel consumption	Qfuel	kWh	24,268
Annual fuel consumption	AFC	GJ	18

NOTE
With reference to the delegated regulation (EU) No 811/2013, the data represented in the table can be used for the completion of the product sheet and the labelling for space heaters, combination heaters, packages of space heaters, temperature control devices and solar devices:

Component	Class	Bonus
Outdoor probe	II	2%
OT+ remote control	V	3%
Outdoor probe + OT+ remote control	VI	4%

General introduction

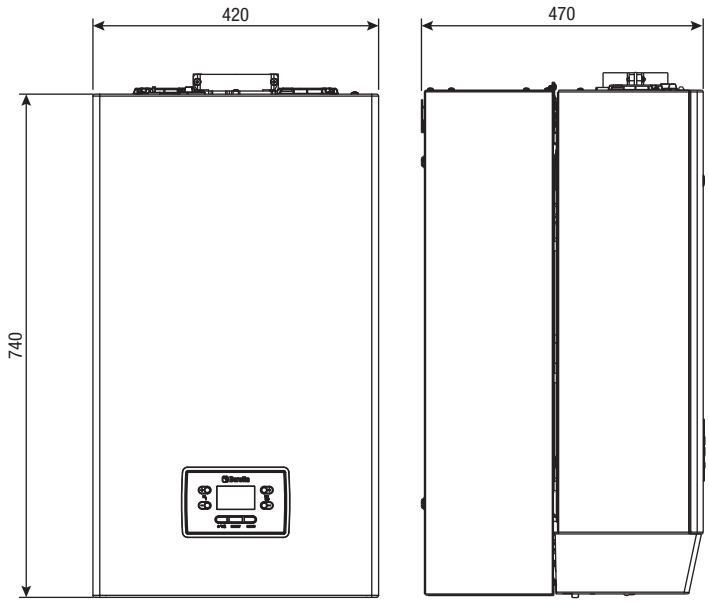
Law Table 10

Description	UM	Mynute Boiler X 25B		
Gas type		G20	G230	G31
MAXIMUM HEAT OUTPUT				
Useful (80÷60°C)	kW		19,40	
Useful (50÷30°C)	kW		20,92	
Firebox	kW		20,00	
MINIMUM HEAT OUTPUT				
Useful (80÷60°C)	kW		2,94	
Useful (50÷30°C)	kW		3,04	
Firebox	kW		3,10	
EFFICIENCY				
Useful efficiency Pn max-Pn min (80÷60°C)	%		96,9	
Useful efficiency Pn max-Pn min (50÷30°C)	%		104,6	
Useful efficiency 30% (return 30°C)	%		109,1	
Losses in the chimney with burner on (Pn max)	%		2,8	
Losses in the chimney with burner off	%		0,09	
Losses in the casing with burner on (Pn max)	%		0,3	
EMISSION VALUES AT MAX AND MIN FLOW WITH GAS (*)				
Maximum				
CO s.a. lower than	p.p.m	140	80	140
CO_2	%	9	10	10
Nox s.a. lower than	p.p.m	50	50	40
Flues temperature	°C	77	78	81
Minimum				
CO s.a. lower than	p.p.m	10	10	30
CO_2	%	9	10	10
NOx s.a. lower than	p.p.m	30	50	40
Flues temperature	°C	64	61	63
NOx class			6	
Electric power: burner, circulator, total	W		62-95	

* Check performed with concentric flue gas Ø60-100 mm - length 0,85 m - water temperature 80÷60°C.

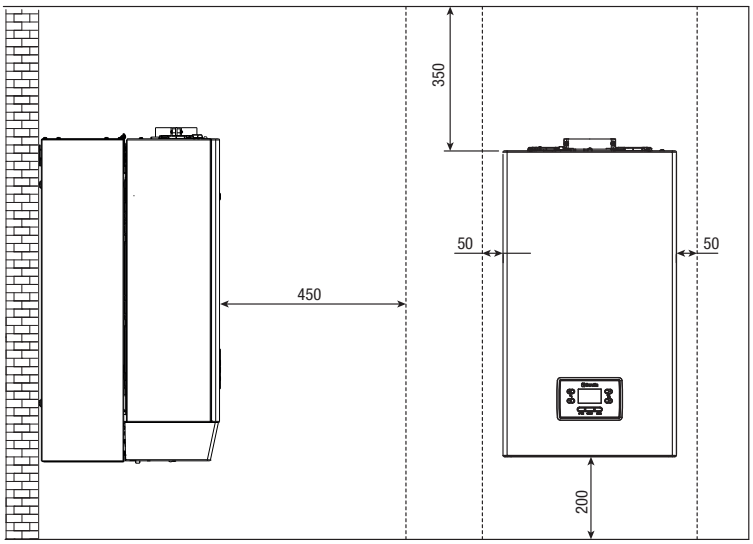
General introduction

Overall dimensions



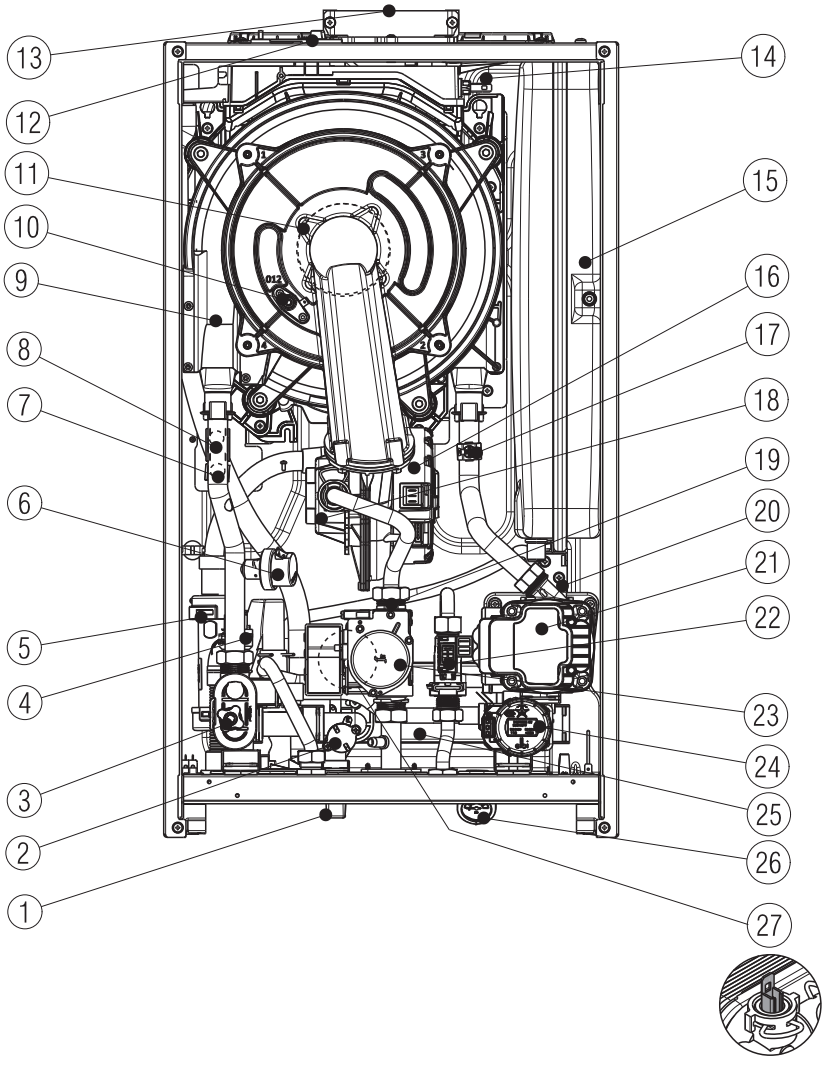
Place of installation

The Mynute Boiler X boiler can be installed indoors in multiple rooms as long as the exhaust of the combustion products and the intake of the combustion air are brought outside the room itself. In this case the room does not require any ventilation openings because it is a boiler with a combustion circuit that is "sealed" with respect to the installation environment. If, however, the combustion air is taken from the installation room, this must be equipped with ventilation openings that comply with the Technical Standards and are adequately sized.
Mynute Boiler X can be installed outdoors in a partially protected place, i.e. in a place where the boiler is not exposed to the direct action and infiltration of rain, snow or hail.
The boiler can operate in a temperature range from >0°C to +60°C.
Take into account the spaces needed for accessibility to the safety and regulation devices and for carrying out maintenance operations.
IMPORTANT - *Before installation, we recommend thoroughly washing all the flue gas system to remove any residues that could compromise the proper functioning of the boiler.*



measures in mm

Structure



1. Filling tap
2. Non-return valve
3. Drain valve
4. Safety valve
5. Condensate siphon
6. Pressure transducer
7. NTC flow probe
8. Limit thermostat
9. Exchanger
10. Ignition electrode/flame detection/ionization sensor
11. Burner
12. Flue gas analysis socket cap
13. Flue gas exhaust
14. Flue gas probe
15. Expansion vessel
16. Fan
17. NTC return probe
18. Mixer
19. Gas diaphragm
20. Air vent valve
21. Circulation pump
22. Flow switch
23. Gas valve
24. Electric three-way valve
25. DHW exchanger
26. Hydrometer
27. DHW NTC probe

Structure

Dosseret Kit (available on request)

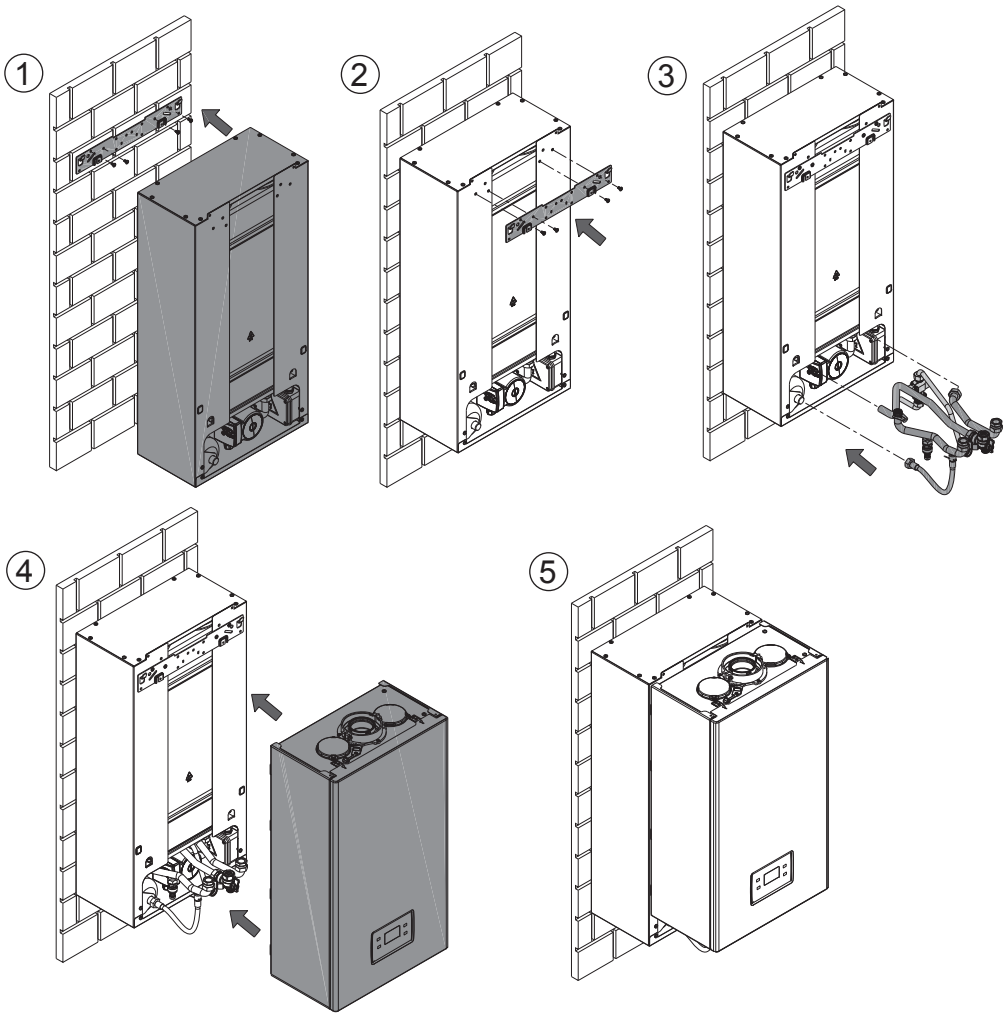
The Dosseret kit combined with the boiler allows you to have a reserve of water always available at the desired temperature.
The system, consisting of a boiler with a 30 lt DHW tank, is easy to assemble: the first step is to install the DHW tank on the wall with the choice of the fittings for domestic water that allow the connection with the boiler.

Installation:

- fix the template of the dosseret to the wall (1)
- fix the boiler fixing template to the dosseret (2)
- assemble the hydraulic pipe kits and the flow switch kit (3) (available on request)
- hook the boiler to the template (4)
- make the hydraulic connections between the dosseret and the boiler
- make the electrical connection between the dosseret and the boiler.

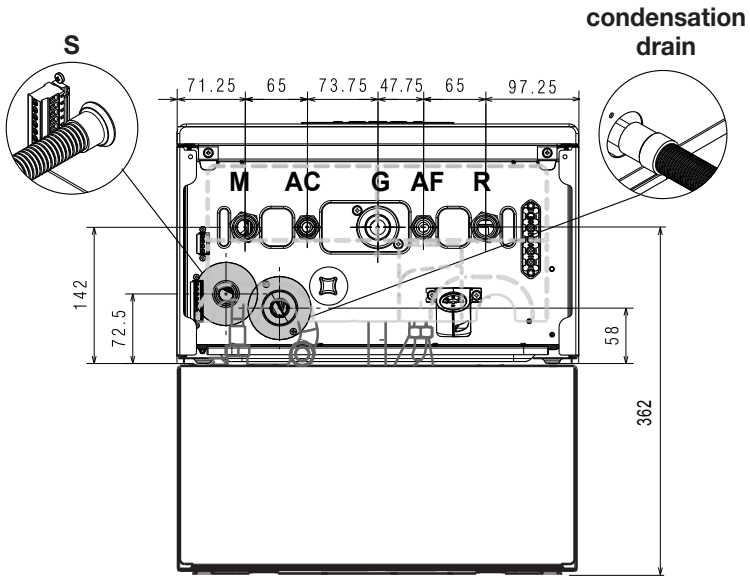
Refer to the specific instructions included in the kit for further details
The boiler with DHW bi-tank technology has the same performance as boilers with 45 and 60 litre coils but with considerably reduced spaces. It is possible, via the parameter in the electronics, to exclude the DHW tank functionality by making the boiler works in instantaneous mode, guaranteeing savings on gas consumption.
P5.20 = 1 DHW bi-tank enabled, domestic hot water tank.
P5.20 = 0 DHW bi-tank functionality excluded, the boiler works in mode guaranteeing savings on gas consumption.

Parameter P5.21 manages the DHW tank reset frequency:
COMFORT causes the boiler to have more and more frequent DHW tank filling cycles. This setting is recommended in domestic applications where the withdrawal cycles are frequent or where the water volume request is higher.
ECO leads the boiler to have a reduced number of DHW tank filling cycles. This choice should be made when you want greater energy savings.



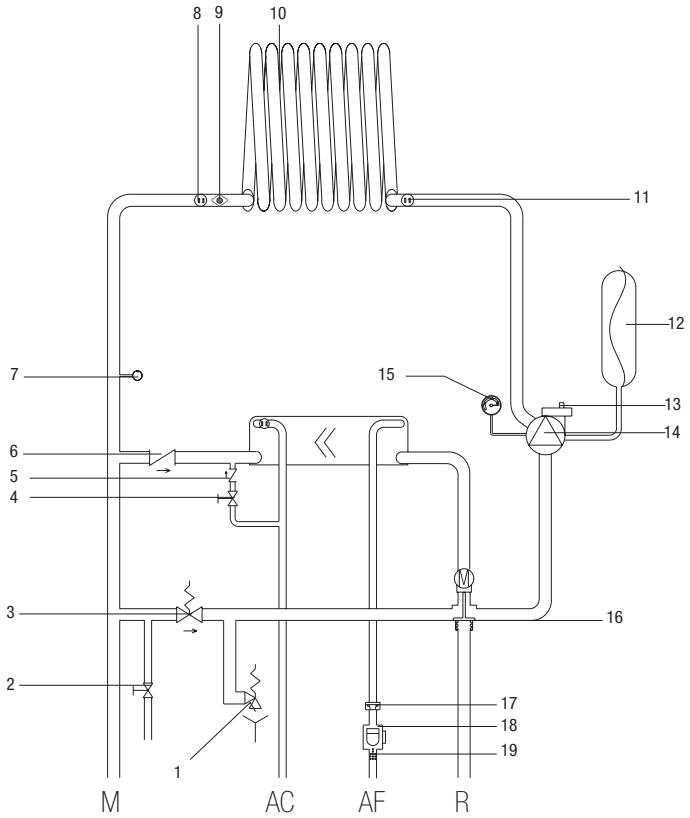
Structure

Hydraulic connections



REF.	DESCRIPTION	
R	Heating return	Ø 3/4" M
M	Heating flow	Ø 3/4" M
G	Gas supply	Ø 3/4" M
AC	Hot water (DHW outlet)	Ø 1/2" M
AF	Cold water (DCW inlet)	Ø 1/2" M
S	Safety valve connection	Ø 1/2" M

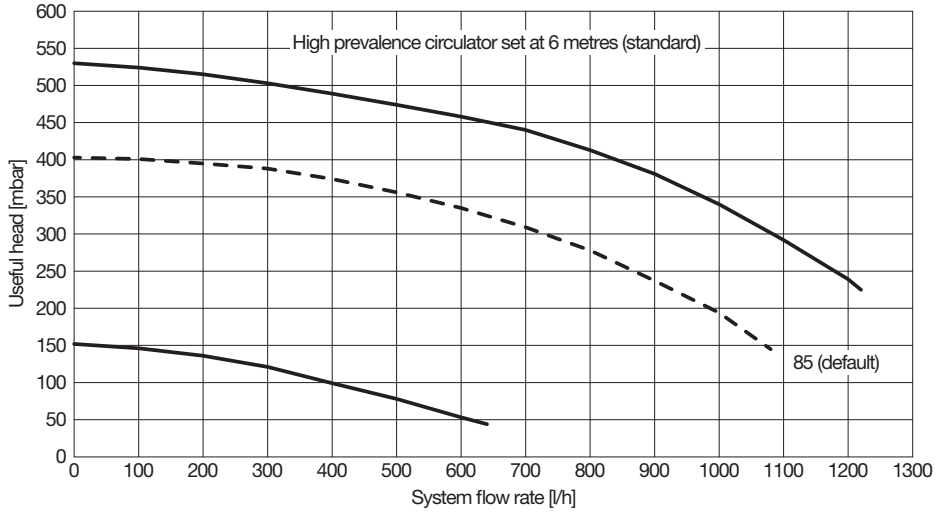
Hydraulic circuit

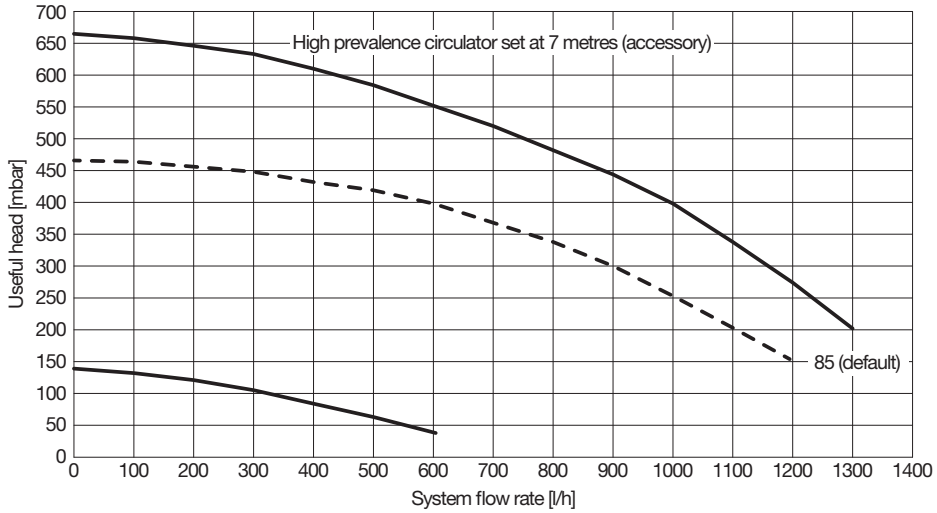


R. Heating return
M. Heating flow
AC. Hot water (DHW outlet)
AF. Cold water (DCW inlet)
1. Heating return
2. Safety valve
3. Automatic by-pass drain valve
4. Filling tap
5. Non-return valve
6. Domestic hot water probe
7. Pressure transducer
8. Flow probe
9. Limit thermostat
10. Primary exchanger
11. Return probe
12. Expansion vessel
13. Lower air vent valve
14. Circulator
15. Hydrometer
16. Electric three-way valve
17. Flow limiter
18. Flow switch
19. Domestic hot water filter

Structure

Flow-Head Diagrams





Structure

Water in heating systems

PHYSICAL AND CHEMICAL CHARACTERISTICS
The chemical-physical characteristics of the water must comply with the European standard EN 14868 and the tables below:

ALUMINUM GENERATORS with Fire Power < 150 kW			
		First fill water	Water on schedule (*)
ph		-	7-8
Hardness	°F	< 15°	-
Appearance		clear	-
Iron	mg/kg	-	< 0,5
Copper	mg/kg	-	< 0,1

(*) System water values after 8 weeks of operation.

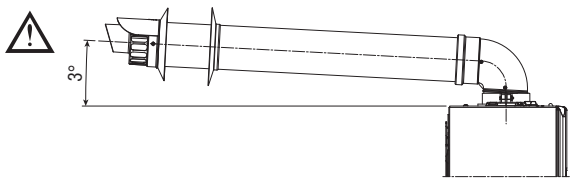
THE NEW HEATING SYSTEMS
The first loading of the system must be done slowly; once filled and deaerated, the system should not be refilled. During the first start-up, the system must be brought to the maximum operating temperature to facilitate deaeration (too low a temperature prevents the escape of gases).

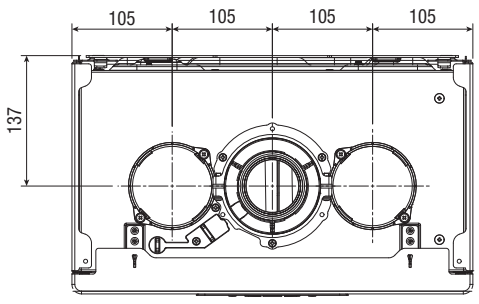
REFURBISHMENT OF OLD HEATING SYSTEMS
In case of boiler replacement, if the water quality in the existing systems complies with the requirements, refilling is not recommended. If the water quality does not comply with the requirements, reconditioning of the water or separation of the systems is recommended (in the boiler circuit the water quality requirements must be met).

Exhaust flues and combustion air intake

For the evacuation of combustion products, refer to the UNI 7129 regulation. You must also always comply with the local regulations of the Fire Brigade, the Gas manager and any municipal provisions.
The boiler is supplied without the smoke exhaust/air intake kit, as it is possible to use the accessories for condensing appliances that best suit the installation characteristics.
It is essential for the extraction of flues and the supply of combustion air of the boiler that only original pipes are used (except type C6 provided they are certified) and that the connection is made correctly as indicated in the instructions supplied with the flue gas accessories.
Multiple appliances can be connected to a single flue provided that they are all of the condensing type.

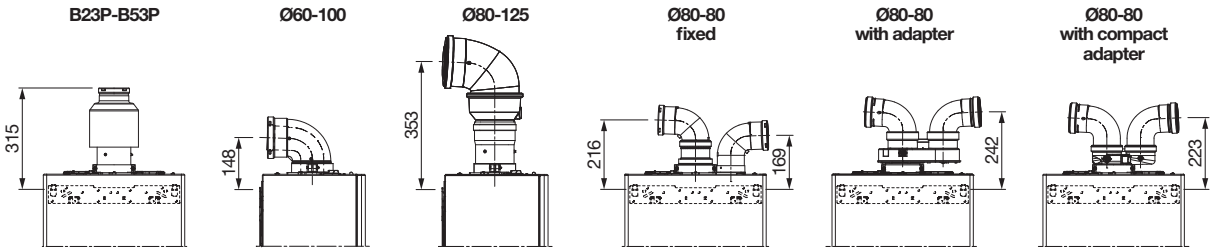
Types of discharge	**Maximum straight length (m)**	**Pressure drops for insertion of each curve (m)**	
	25 C	**45°**	**90°**
Ø80 mm flue gas (B23P-B53P installation type)	48	1	1,5
Ø60-100 mm concentric flue gas (horizontal)	5,85	1,3	1,6
Ø60-100 mm concentric flue gas (vertical)	6,85	1,3	1,6
Ø80-125 mm twin flue gas	14	1	1,5
Ø80 mm twin flue gas (fixed or with adapter)	52+52	1	1,5
Ø80 mm twin flue gas (with compact adapter)	33+33	1	1,5

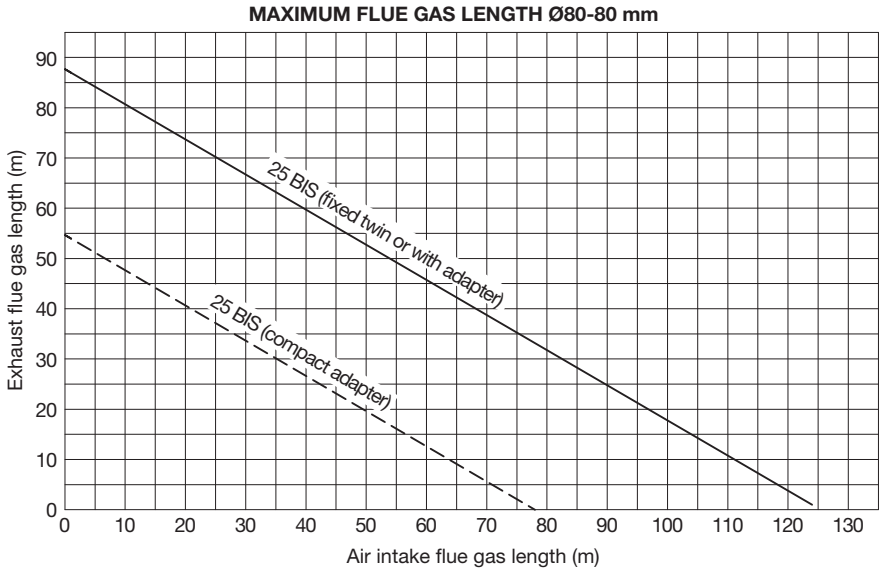




Structure

For the indication of the maximum lengths with Ø80-80 mm TWIN FLUE GAS of the single flue gas, refer to the following graphs.





Twin systems Ø80 with Ø50 - Ø60 - Ø80 flue gas

The boiler features allow the connection of the Ø80 flue gas system to the Ø50 - Ø60 - Ø80 flue gas ranges.
Warning - *For ducting, it is recommended to perform a project calculation in order to comply with the current regulations on the subject.*
The table shows the basic configurations of the flue gasses allowed.

Air intake	1 90° bend Ø80
	4,5m pipe Ø80
Flues system	1 90° bend Ø80
	4,5m pipe Ø80
	Reduction from Ø80 to Ø50 from Ø80 to Ø60
	Chimney base bend 90°, Ø50 or Ø60 or Ø80
	For flue gas lengths see table

The boilers leave the factory calibrated to:

IMAGE	rpm HEATING	rpm DHW	Max flues length (m)		
			Ø50	Ø60	Ø80
	7.000	8.700	6	19	95
			1	9	45

Depending on the lengths, compensate for the pressure drops by increasing the number of fan revolutions as shown in the adjustment table to ensure the rated thermal capacity.

Structure

Flue gas adjustment tables

twin flue gas

Description	Fan speed rpm		Flues Ø50	Flues Ø60	Flues Ø80	ΔP boiler outlet
	HEATING	DHW	max length m			(Pa)
25 kW	7.000	8.700	6	19	95	180
	7.100	8.800	12 (*)	33 (*)	165 (*)	260
	7.200	8.900	16 (*)	39 (*)	195 (*)	300
	7.300	9.000	19 (*)	46 (*)	230 (*)	342
	7.400	9.100	23 (*)	53 (*)	265 (*)	383
	7.500	9.200	27 (*)	61 (*)	305 (*)	431
	7.600	9.300	29 (*)	67 (*)	335 (*)	465
	7.700	9.400	32 (*)	73 (*)	365 (*)	500

(*) Maximum length that can be installed ONLY with class H1 flue gas.

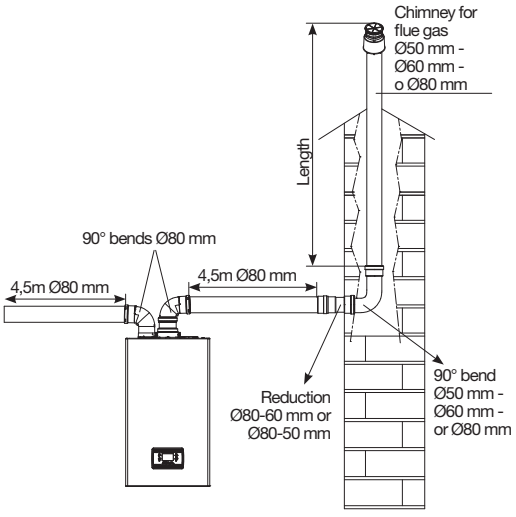
COMPACT twin flue gas

Description	Fan speed rpm		Flues Ø50	Flues Ø60	Flues Ø80	ΔP boiler outlet
	HEATING	DHW	max length m			(Pa)
25 kW	7.000	8.700	1	9	45	180
	7.100	8.800	7 (*)	23 (*)	115 (*)	260
	7.200	8.900	11 (*)	29 (*)	145 (*)	300
	7.300	9.000	14 (*)	36 (*)	180 (*)	342
	7.400	9.100	18 (*)	43 (*)	215 (*)	383
	7.500	9.200	22 (*)	51 (*)	255 (*)	431
	7.600	9.300	24 (*)	57 (*)	285 (*)	465
	7.700	9.400	27 (*)	63 (*)	315 (*)	500

(*) Maximum length that can be installed ONLY with class H1 flue gas.

The Ø50 or Ø60 or Ø80 configurations show experimental data verified in the Laboratory. In case of installations different from those indicated in the “basic configurations” and “adjustments” tables, refer to the equivalent linear lengths reported below.

Component	Linear equivalent in meters Ø80 (m)	
	Ø50	Ø60
45° Bend	12,3	5
90° Bend	19,6	8
0,5 m Extension	6,1	2,5
1,0 m Extension	13,5	5,5
2,0 m Extension	29,5	12



Structure

Electrical connection

Mynute Boiler X 25B

The Mynute Boiler X 25B boiler leaves the factory fully wired.
The following connections are sufficient:

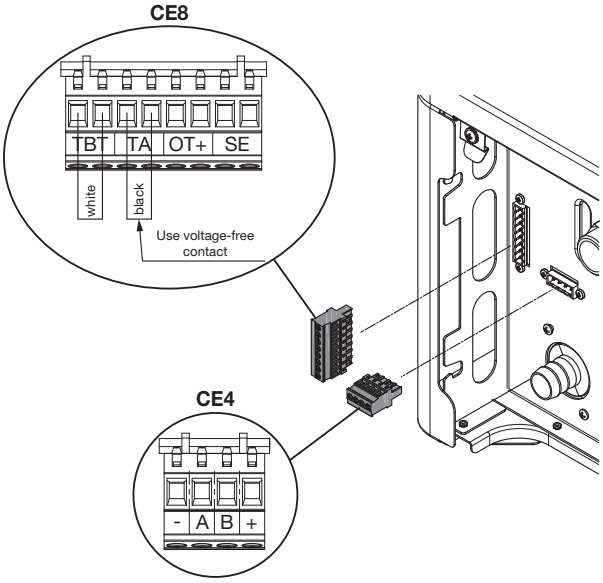
- to the electrical network with single-phase voltage at 230V-50Hz, using the provided cable;
- to the Bus 485 (- A B +);
- to the low temperature thermostat (TBT);
- to the room thermostat (TA/OT+) - clean contact (Opentherm);
- to the outdoor probe (SE).

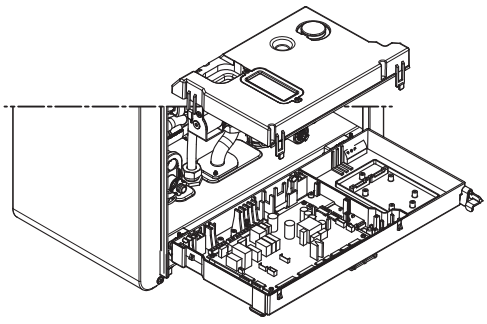
The connection to the electrical network must be made via a separation device with an omnipolar opening of at least 3,5 mm (EN 60335-1, category III). The appliance operates with alternating current at 230 Volts/50 Hz and complies with the EN 60335-1 standard.

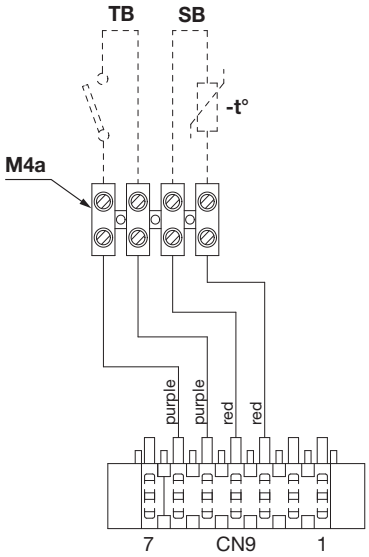
In the event of replacing the power cable, use a cable of the type HAR H05V2V2-F, 3 x 0,75 mm², max. external diameter 7 mm.

It is mandatory:

- the use of an omnipolar magnetothermal switch, line disconnector, compliant with CEI-EN Standards (contact opening of at least 3 mm);
- respect the L (Phase), N (Neutral) connection;
- use cables with a section greater than or equal to 1,5 mm², complete with cable lugs;
- create an effective earth connection.

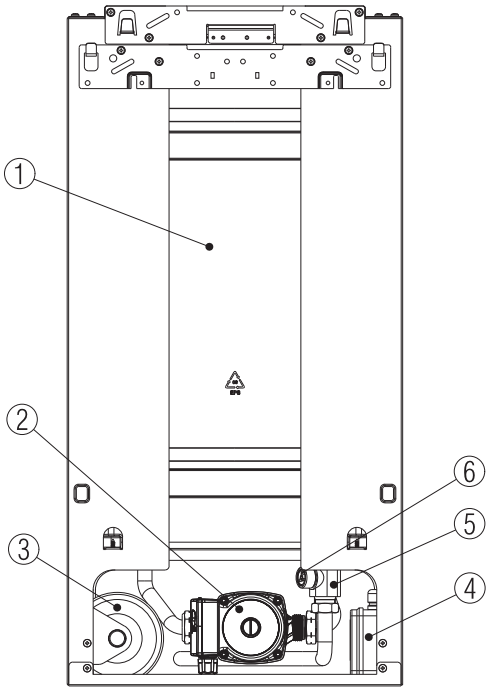




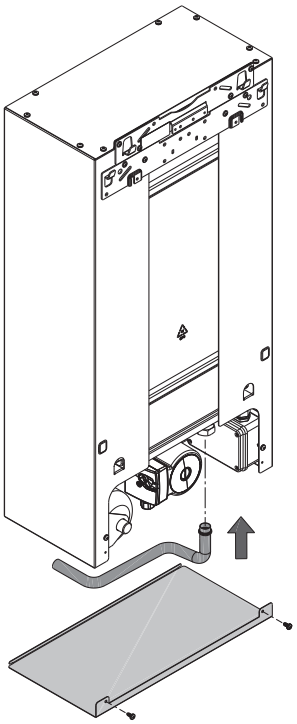


DHW Bi-Tank (Dosseret - accessory)

Structure

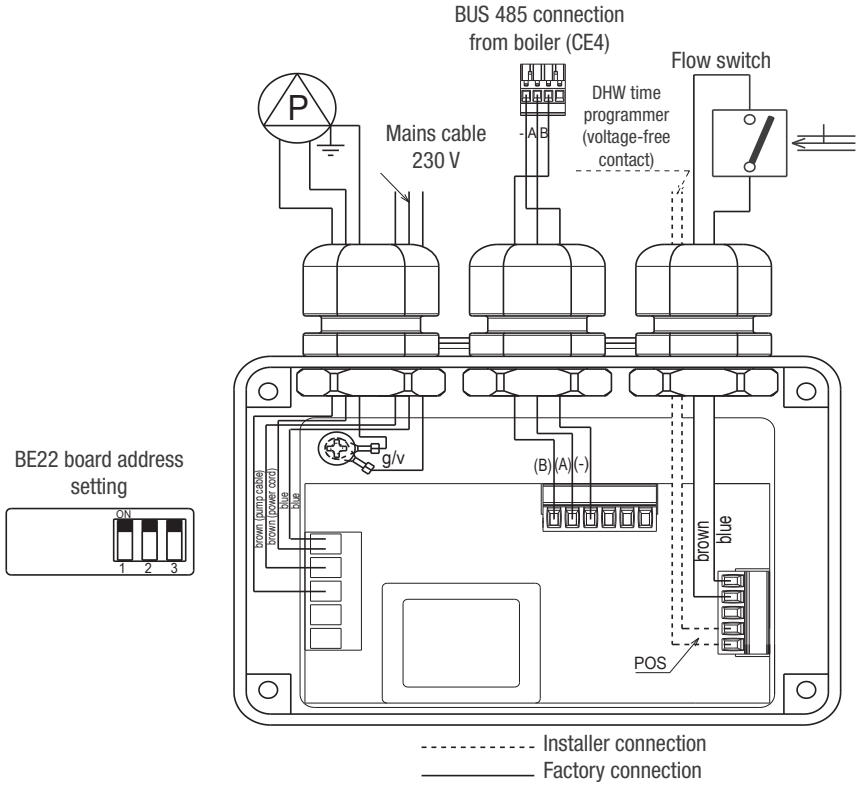


1. 31L wall-hung DHW BI-TANK
2. Circulator
3. DHW expansion vessel
4. Electronics kit
5. Valve
6. Check valve



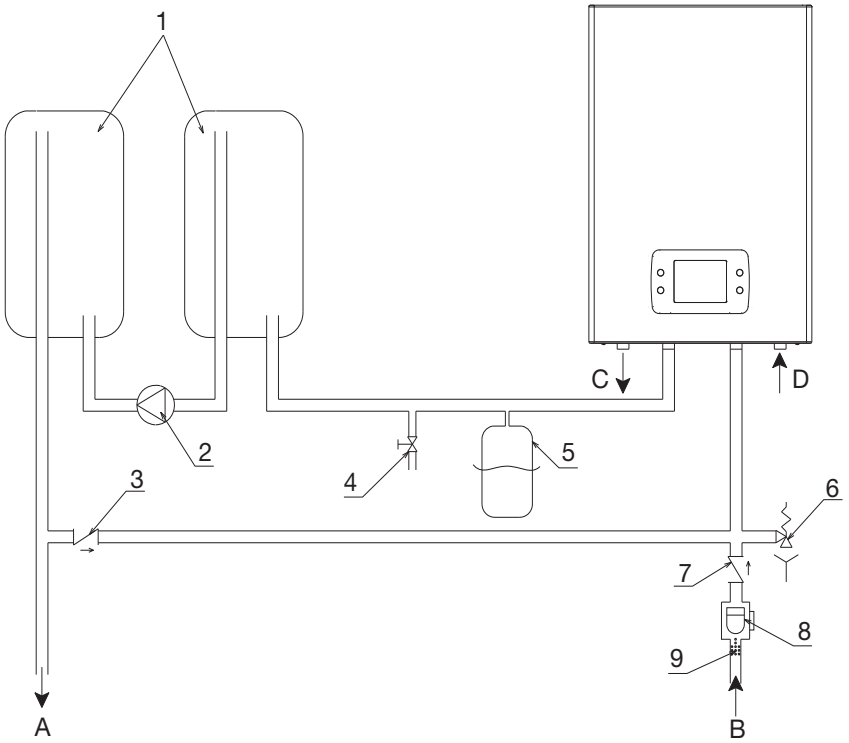
DHW Bi-Tank (Dosseret - accessory)

Electrical diagram



Hydraulic circuit

DHW BI-TANK



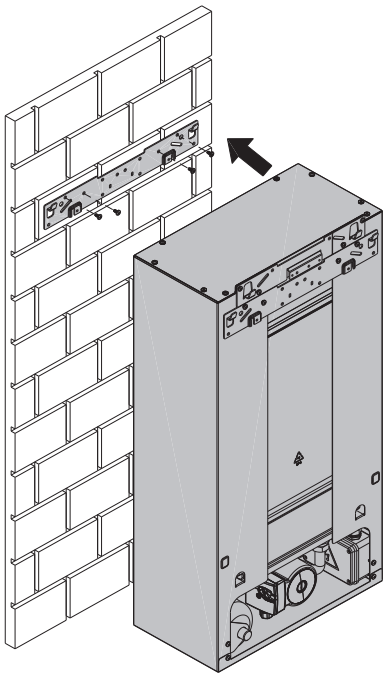
A. Hot water outlet
B. Cold water inlet
C. Heating flow
D. Heating return
1. 31L DHW BI-TANK
2. Domestic hot water pump
3. Non-return valve
4. Drain tap
5. Domestic hot water expansion vessel
6. Safety valve
7. Non-return valve
8. Flow switch
9. Domestic hot water filter

DHW Bi-Tank (Dosseret - accessory)

Installation

DHW BI-TANK + Mynute Boiler X 25B

1



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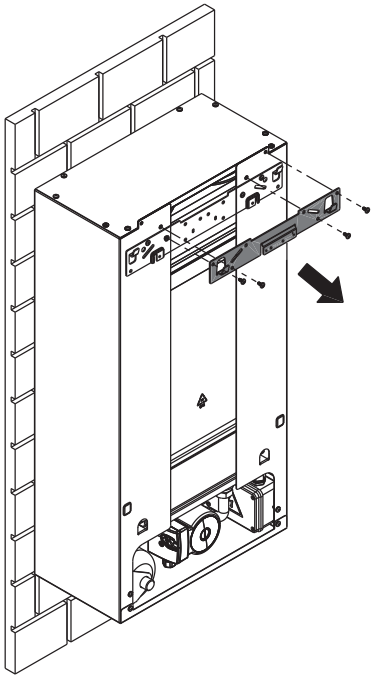

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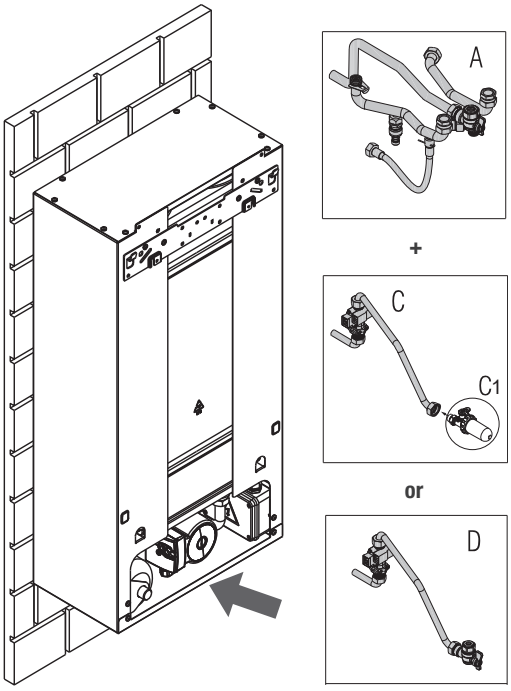
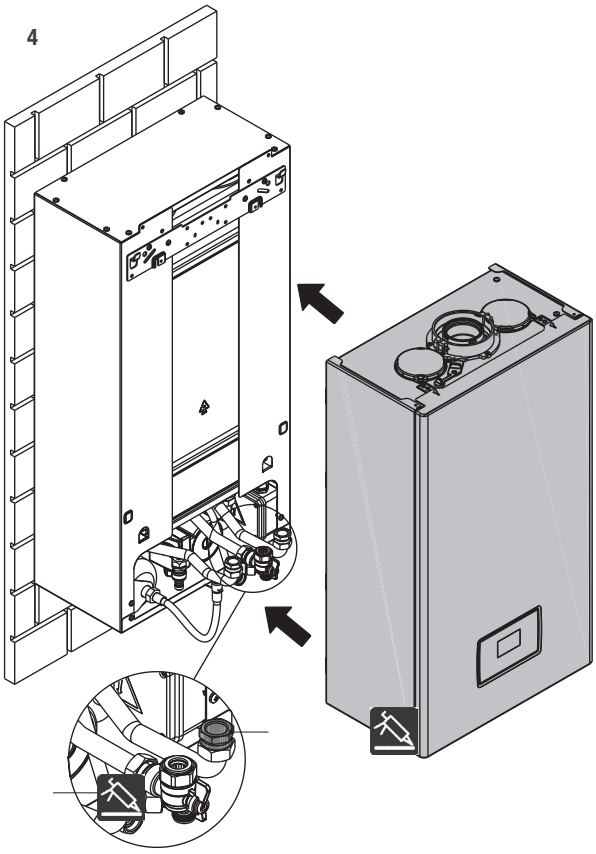


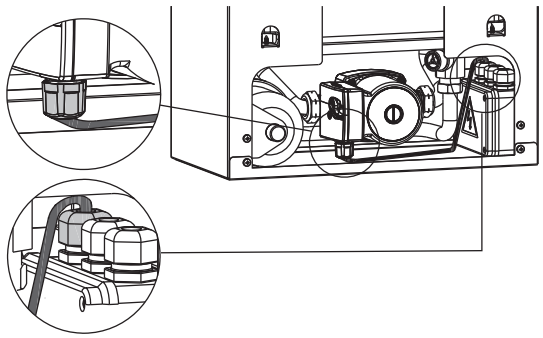
4



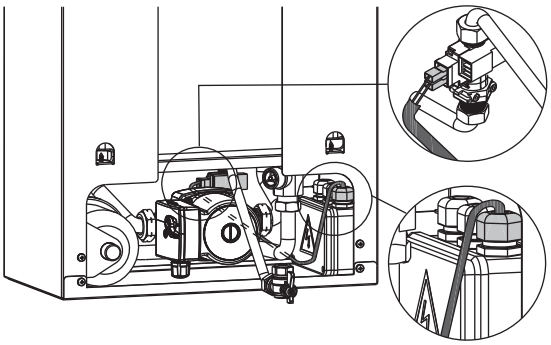
DHW Bi-Tank (Dosseret - accessory)

Electrical connections

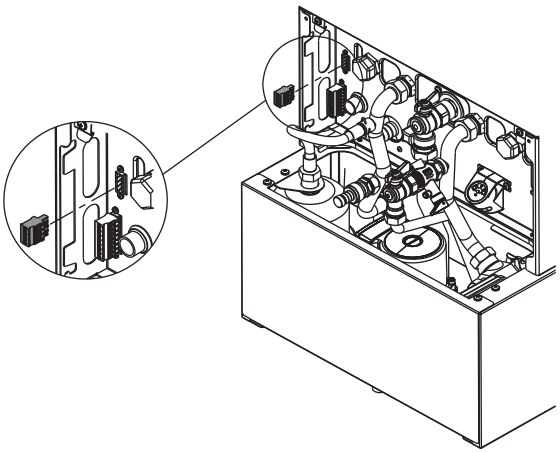
Factory configuration - CIRCULATOR CONNECTION



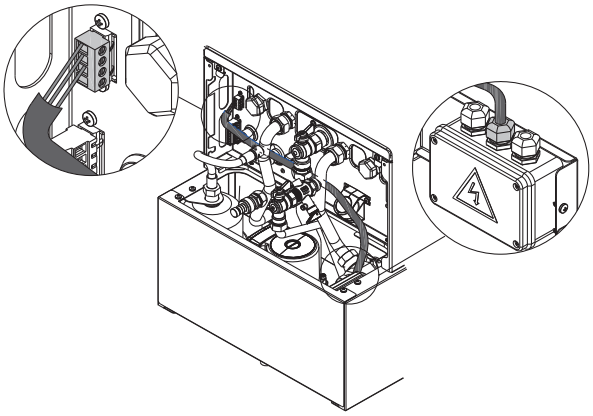
Factory Configuration - FLOW SWITCH CONNECTION



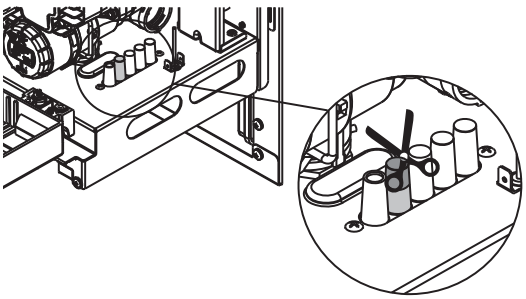
Remove the 4-way connector located under the boiler shelf



Connect BUS 485 signal cable

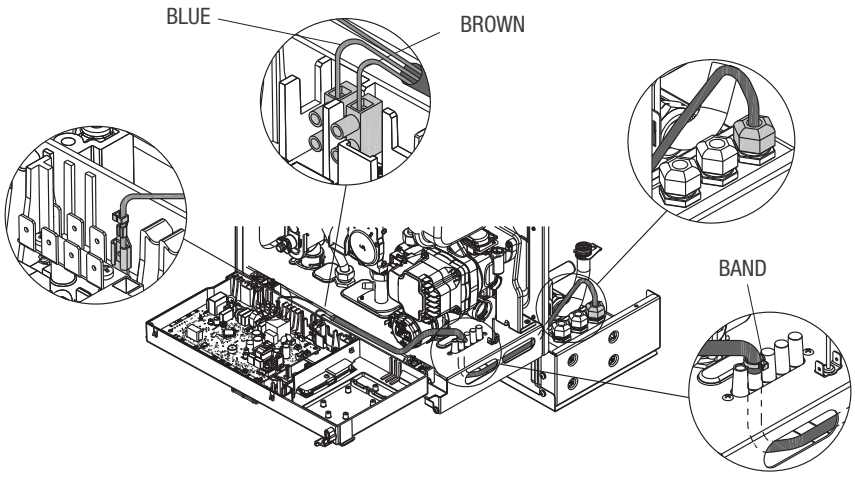


Cut the cable poppet with scissors

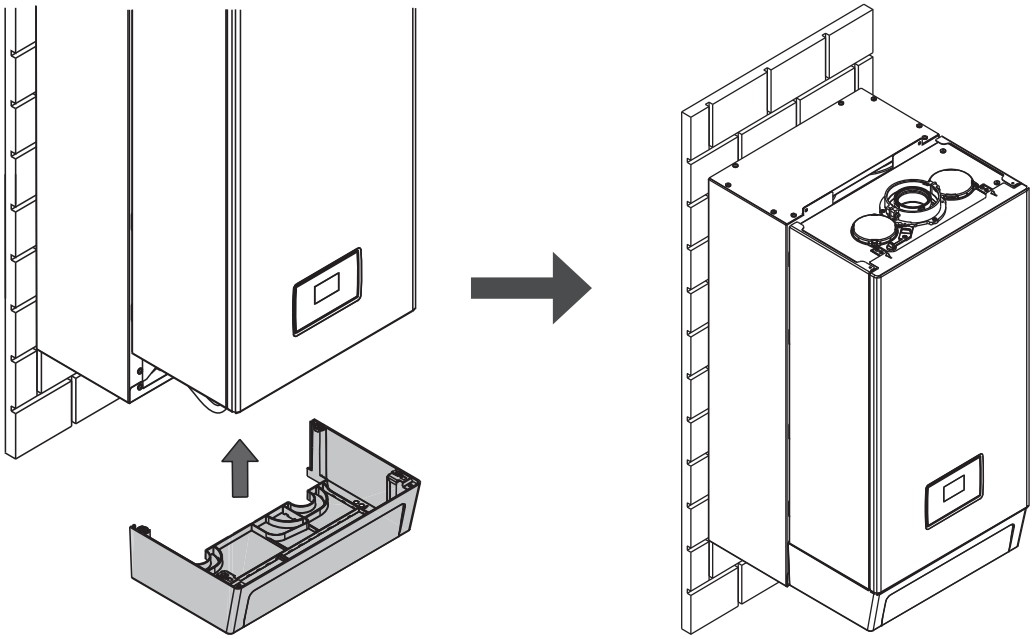


DHW Bi-Tank (Dosseret - accessory)

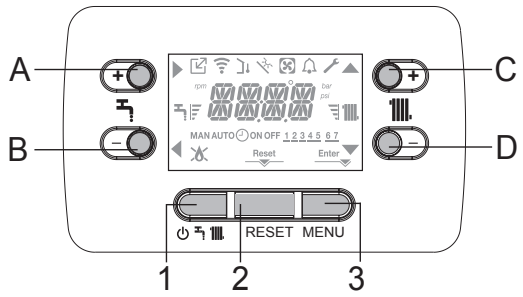
Connect Dosseret power cable to boiler



Apply the bottom cover



Control panel

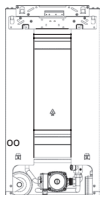
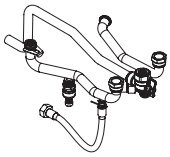
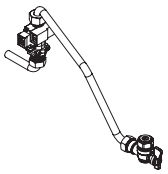
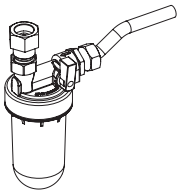
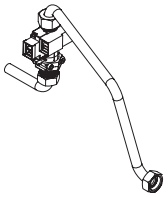
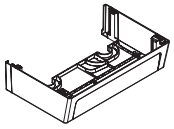
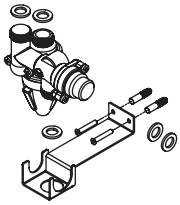


The control panel has the function of boiler interface, displays the settings related to the system and allows access to the parameters. The display normally shows the temperature of the sent probe unless a request for domestic water is in progress, in which case the DHW probe temperature is displayed; after 10 seconds without touching any key, the interface displays the current time (backlight off). The configuration MENU is organized according to a multilevel tree structure. An access level has been defined for each submenu: USER level always available; TECHNICAL level protected by password. Below we summarize the structure of the SETTINGS MENU tree. Some of the information may not be available depending on the access level, the boiler status or the system configuration.

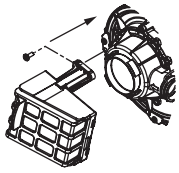
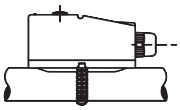
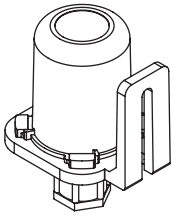
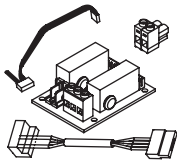
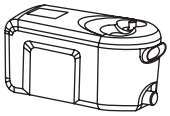
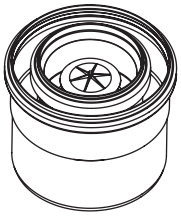
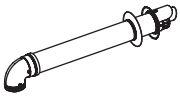
	Key Functionality
A	It is normally used to increase the domestic hot water temperature value, when the arrow ▶ is highlighted it performs the confirmation function instead.
B	It is normally used to decrease the domestic hot water temperature value, when the ◀ arrow is highlighted it performs the back\cancel function.
A+B	Access to the health comfort functions and activation of the Bottle function (allows you to lock the value set in the health setpoint, preventing anyone from inadvertently modifying it).
C	It is normally used to increase the heating water temperature value, when the ▲ arrow is highlighted it allows you to move within the **P1** menu.
D	It is normally used to decrease the heating water temperature value. When the ▼ arrow is highlighted, it allows you to move within the **P1** menu.
A+C	Access to the clock setting menu.
1	Used to change the boiler operating status (OFF, SUMMER and WINTER).
2	Used to reset the alarm status or to interrupt the venting cycle.
3	Used to access the **INFO** and **P1** menus. When the icon Enter is shown on the display, the key assumes the function of ENTER and is used to confirm the value set during the programming of a technical parameter.
1+3	Lock and unlock keys.
2+3	When the boiler is in OFF state it is used to activate the combustion analysis function (CO).

	Description of icons
	Indicates connection to a remote device (OT or RS485).
	Indicates connection to a WIFI device.
	Indicates the presence of an outdoor probe.
	Indicates activation of special DHW functions.
	An icon that lights up in the event of an alarm.
	It lights up in the event of an anomaly together with the icon , with the exception of the flame and water alarms.
	Indicates the presence of a flame; in the event of a flame block, the icon appears .
Reset	It lights up when there are alarms that require manual unlocking by the operator.
Enter	It lights up when a confirmation operation is required.
	When the icon is active, it indicates that the “confirm” function of the A key is active.
	When the icon is active, it indicates that the “back\ cancel” function of the B key is active.
	When the icon is active, it is possible to navigate the menu or increase the value of the selected parameter.
	When the icon is active, it is possible to navigate the menu or decrease the value of the selected parameter.
	The icon lights up if heating is active, it flashes if heating is requested.
	The icon lights up if domestic hot water is active, it flashes if domestic hot water is requested.
	They indicate the setpoint level set (1 = minimum value notch, 4 = maximum value notches).
1 2 3 4 5 6 7	Indicates the days of the week.
AUTO ON	Not available on this model.
MAN ON	Not available on this model.
MAN OFF	Not available on this model.

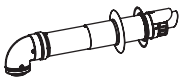
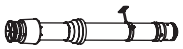
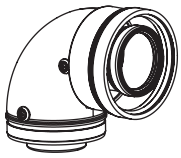
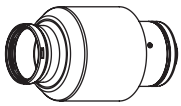
Accessories

CODE	IMAGE	DESCRIPTION
SPECIFIC ACCESSORIES FOR COMMERCIAL SETS		
20213360		Dosseret Bi-Tank - 25 kW
20213361		Fittings for Bi-Tank- 25 kW
20213415		Flow switch kit and fittings - 25 kW (for composition with dispencer kit)
20191518		Compact polyphosphate dispenser kit
20213431		Flow switch kit and fittings - 25 kW (for composition without dispencer kit)
20216906		Low fitting cover
HYDRAULIC ACCESSORIES		
20105959		ErP high head circulator (1)
20035644		Solar diverter mixing valve kit (for combi boilers)

Accessories

MECHANICAL ACCESSORIES		
20190324		Air filter (2)
COMPLEMENTARY ACCESSORIES		
1220639		Limit thermostat for low temperature systems
1220559		**Outdoor probe kit with connector** The outdoor probe kit detects the outside temperature and activates the climate control programme. Wall mount and connect directly to the boiler board. To be necessarily provided in the case of hybrid systems with the boiler for the management of energy source operation modes.
20192808		Board BE09 with double multi-function relay (3)
20097192		**Condensate booster pump kit** Piston pump with integrated tank (0,37 liters) specifically designed to evacuate acidic condensates. Kit consisting of No. 1 piston pump, No. 1 integrated detection block, No. 1 W=1,5m connecting cable, No. 2 wires for power supply, No. 2 wires for safety alarm cont., wall mounting bracket.
FUMISTERIA		
20129765		Fixed twin system kit Ø80 mm
20164664		Ø80 mm clapet kit for pressurized collective flues
20164662		Ø80/125 mm concentric clapet kit for pressurized collective flues
20129175		Ø60/100 mm horizontal terminal kit

Accessories

20129176		Ø60/100 mm telescopic wall-hung collector
20129177		Ø60/100 mm vertical collector
20129174		Ø60/100 mm vertical connection stub pipe kit (4)
20129172		Ø60-100 mm, 90° bend kit for boiler start (5)
20134830		Twin system kit with variable position air inlet
20129768		B23 flue gas adapter twin Ø80 with air intake
20129769		B23 adapter kit from Ø60/100 mm concentric flue gas up to Ø80 mm
20190475		Compact adjustable twin device kit from 60/100 mm concentric flue gas to 80/80 mm twin flue gas

(1) Accessory for boiler only
(2) Ideal to avoid introducing impurities from the intake air into the exchanger and burner.
(3) Ideal board for managing additional circulator, alarm remote kit and zone valve.
(4) Code necessary for vertical flues with flue system. Accessory already included in kit 20129177.
(5) Code necessary for horizontal flues with flue system Ø60/100 mm. Accessory already included in kits 20129175 and 20129176.

Accessories

Accessories - Hi, Comfort room control (*)

CODE	IMAGE	DESCRIPTION
20193354		**Hi, Comfort T100 Wi-Fi.** Complete kit for Wi-Fi installation, containing room control Hi, Comfort T100 and Hi, Comfort G100-W. The package also includes batteries, connection cables, transformer, screws, dowels, double-sided adhesive tape, magnetic sticker and technical manual. ErP CLASS-CONTRIBUTION: VI-4% (*); I-1% (**).
20193352		**Hi, Comfort T100.** Hi, Comfort T100 room control intended for replacement or new installations, either with single zone or for expansions for Multizone applications. Hi, Comfort T100 is compatible for Internet connection in conjunction with Hi, Comfort G100-W (optional). The package also includes batteries, screws, dowels, double-sided adhesive and technical manual. ErP Class-Contribution: V-3%(*); I-1% (**).
20193355		**Hi, Comfort G100-W.** Wi-Fi box: device that allows connection to the Internet through the home Wi-Fi network. It also allows connection to the boiler BUS for advanced remote management. The package also includes: connection cables, transformer, magnetic sticker.
20193356		**Hi, Comfort G100-R.** RF-Wireless boiler receiver: radio frequency device that allows wireless connection of the RiCLOUD control to the boiler (both on / off and via BUS). It can also be used in cases where the weakness of the Wi-Fi signal does not allow the connection of the Wi-Fi box near the boiler.

Guide to the specifications

Construction description for specifications

Mynute Boiler X 25B is a wall-hung condensing boiler to be used for heating and domestic hot water production: depending on the flue accessory used, it is classified in the categories B23P; B53P; C(10)3; C13,C13x; C33,C33x; C43,C43x; C53,C53x; C63,C63x; C83,C83x; C93,C93x.
Wall-hung condensing boilers, with primary exchanger in AISI 441 stainless steel and pneumatic combustion system that guarantees functionality, efficiency and low emissions in all circumstances. 1:8 modulation across the entire range.
Mynute Boiler X 25B stands out for its compactness (only 249 mm deep), application flexibility and wide availability of accessories that guarantee compatibility and backward compatibility even in the smallest Beretta boxes.

Characteristics

The boilers of the Mynute Boiler X 25B range are heat generators characterised by:

- Pneumatic combustion system that guarantees, in all circumstances, functionality, efficiency and low emissions; designed to operate with natural gas, LPG and with mixtures of natural gas and up to 20% hydrogen. The models are also approved to work with propane air.
- Maximum heat output adjustable to the thermal needs of the system, for heating operation of the boiler itself. Once the desired power has been set (maximum heating), report the value and, for subsequent checks, refer to the new value (Range Rated).
- High-efficiency modulating circulator already connected hydraulically and electrically, which is factory-set with a 6-meter head curve; available as a 7-meter circulator accessory. Modulation occurs proportionally to the power supplied by the burner.
- Anti-lock system that starts an operating cycle every 24 hours of inactivity with the function selector in any position.
- Circular main exchanger in AISI 441 stainless steel.
- Brazed plate DHW exchanger designed and manufactured in Beretta with high efficiency that allows the production of domestic hot water in condensation mode and with maximum stability.
- Premix burner with low polluting emissions Class 6 NOx, according to UNI EN 15502-1, fan, high modulation mixer and gas diaphragm. Available as an accessory kit with non-return valve (clapet) for connection to positive pressure flue systems.
- Available as an accessory kit for air filtering integrated into the boiler consisting of a filter in elastic and break-resistant polyolefin fibres.
- Hydraulic connections with sequence of Beretta-type connections and specific accessories in case of replacement with old boilers and built-in boxes.
- Filling tap, deaeration tap.
- Siphon with safety ball inside the boiler footprint.
- Drain valve.
- Pressure transducer.
- Safety valve.
- Return probe, flue gas probe, and flow probe.
- Automatic antifreeze system, which is activated when the water temperature of the primary circuit drops below 5°C. This system is always active and guarantees boiler protection up to an air temperature in the installation location of 0°C.
- Limit thermostat.
- Single electrode for ignition and flame detection.
- Ignition transformer.
- Equipped with flue gas analysis socket cap.
- 8-liter expansion vessel.
- Three-way hydraulic valve (stepper).
- Manual filling valve.
- Hydrometer.
- Lower air vent valve.
- Control panel with boiler interface function, and displays the system settings and makes it possible to access the parameters. The main screen shows, in the central position, the temperature of the domestic hot water probe unless there is a heat request in progress, in which case the boiler flow temperature, the water pressure in the system, and the information relating to the current date and time are displayed, and, if available, the value of the outdoor temperature detected.
- OT+ inlet as standard.
- Mynute Boiler X 25B is compatible with all Hi, Comfort products.

Beretta

SCAN AND DISCOVER
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