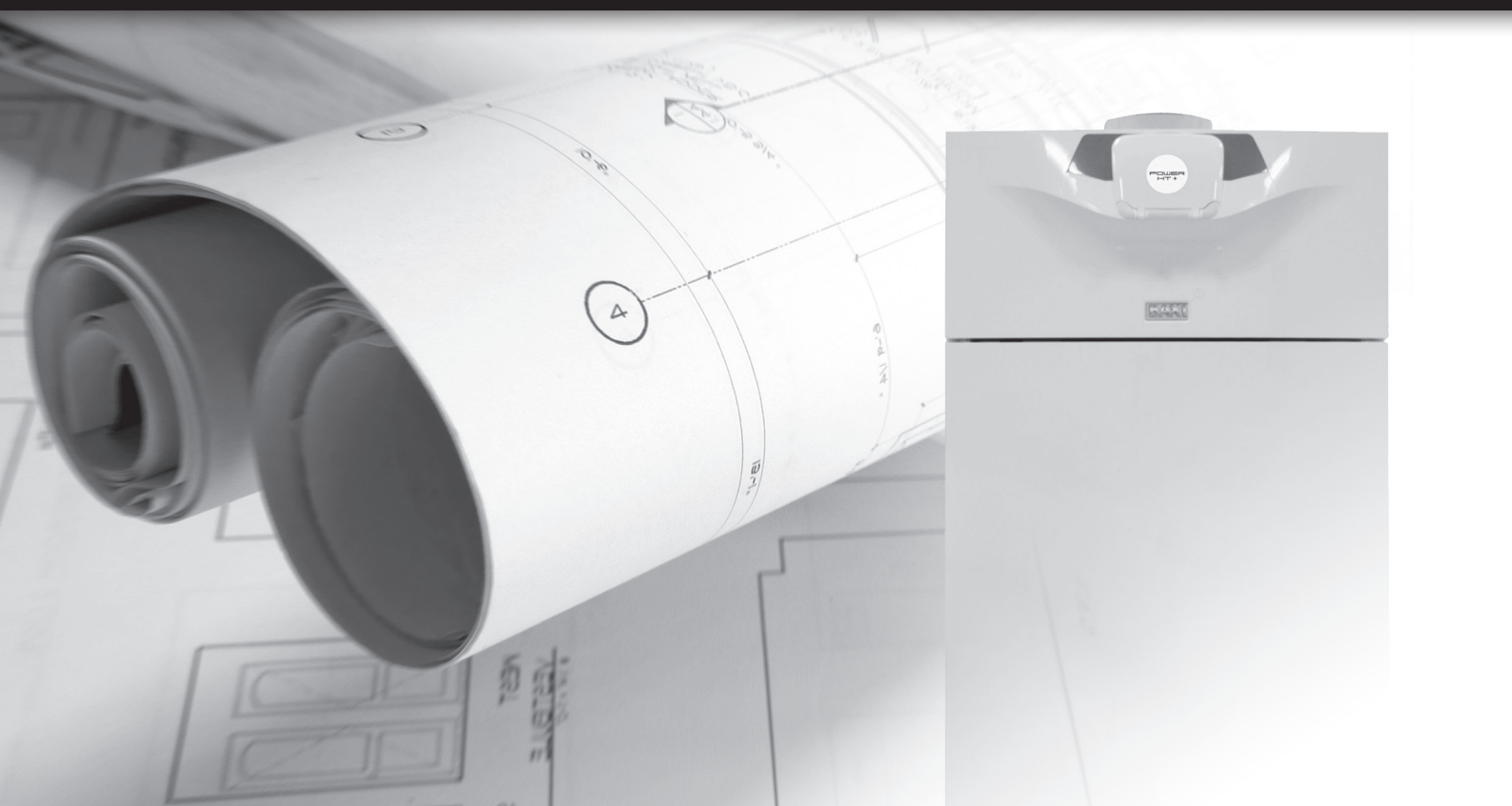


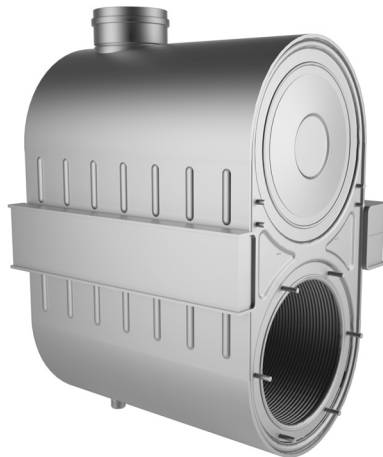
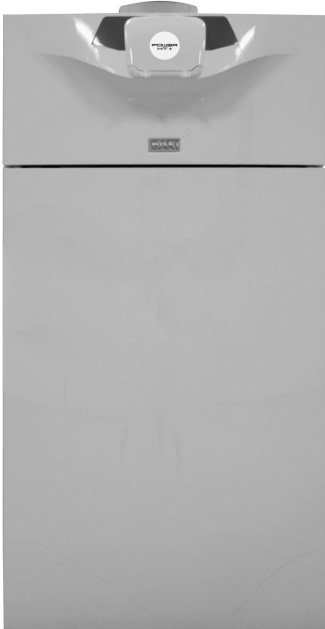
# BAXI

## Power HT+



## Power HT+ 50-110 kW

The range of high output floor standing boilers POWER HT+ consists of condensing heat generators for heating only, with output between 50 and 110 kW (50/30°C).



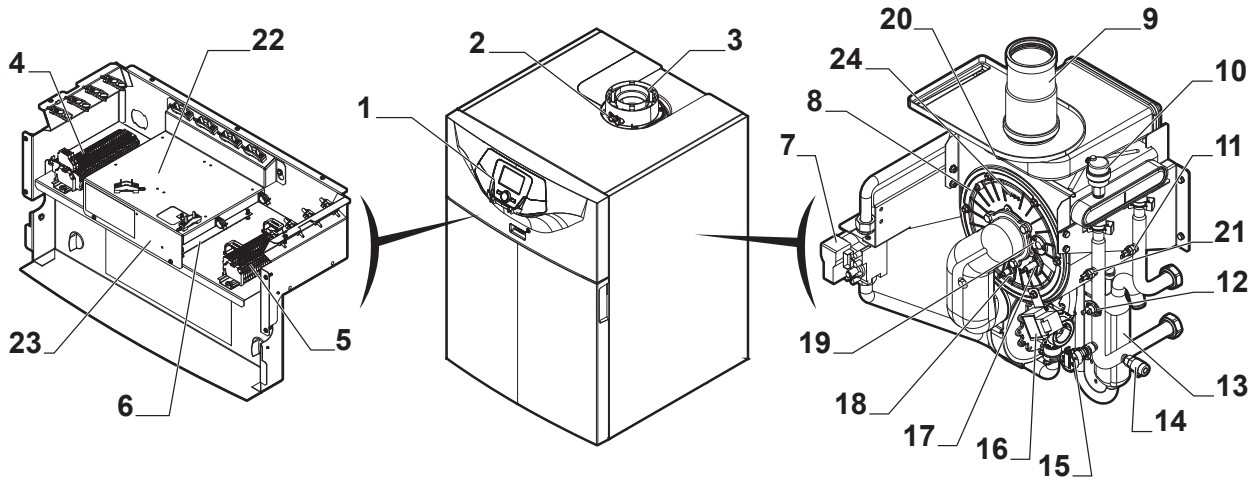
Main features:

- **high modulation ration (1:9);**
- nominal **efficiency 50/30°C: 105%;**
- **heat exchanger** with combustion chamber and stainless steel coil hydraulic system, single chamber models 50 and 70 kW, double chamber models 90 and 110 kW;
- low water content in the exchanger that means very limited thermal inertia and therefore a rapid response to the variations in thermal energy required by the system;
- premixing unit with double clapet technique, ensuring that the burner constantly has an optimal air/gas ratio independently from the number of fan revs, keeping consumption to a minimum and always guaranteeing correct combustion and consequently a reduction in polluting emissions;
- **NTC sensor on flow and return** for a more precise modulation;
- **digital PCB with latest generation double microprocessor;**
- control panel with large back-lit LCD;
- **stainless steel burner** for 1.50, 1.70, 1.90 models and metallic fiber for 1.110 model;
- high efficiency full modulating circulating pump – available with the hydraulic connection;
- adjustable speed fan and insulation for a noiseless operation;
- **electronics that allows great flexibility** in highly diversified contexts. With specific accessories that can also be installed inside the boiler, it is possible to control mixing zones, daily and weekly programming of heating and sanitary functions, cascade, recirculation and other functions;
- 0-10 V control available as optional;
- accessories for single or cascade installation;
- hydraulic accessories to install from 2 to 6 boilers in cascade;
- operation with natural gas and LPG (with LPG conversion kit).

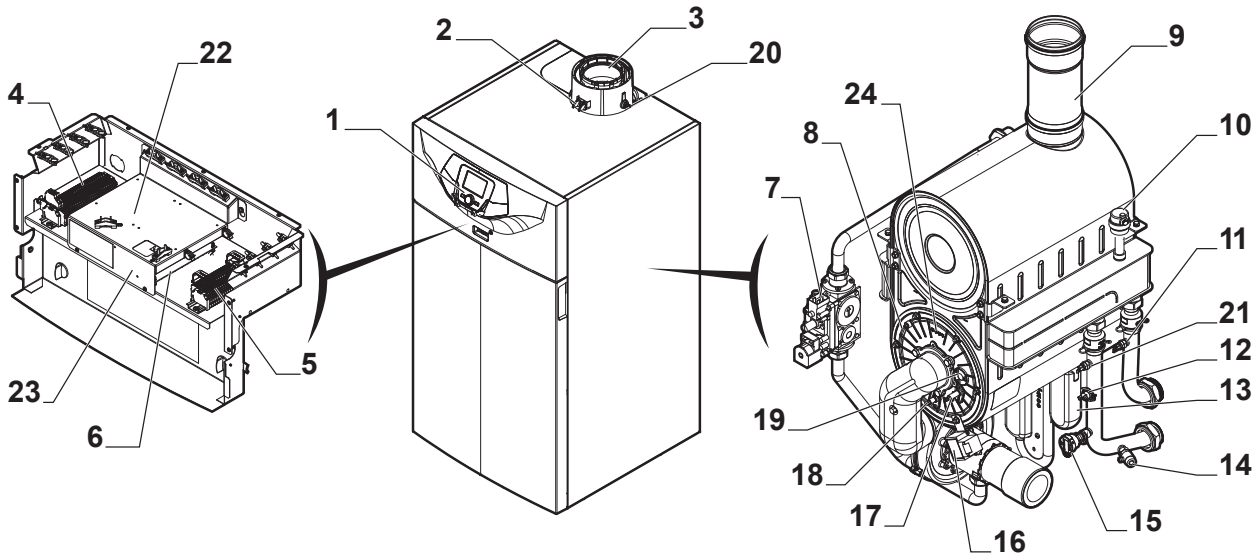
Power HT+		1.50	1.70	1.90	1.110
Maximum heat input	kW	46,3	66,9	87,4	104,9
Minimum heat input	kW	5,1	7,4	9,7	11,7
Maximum heat output (80/60 °C)	kW	45	65	85	102
Maximum heat output (50/30 °C)	kW	48,6	70,2	91,8	110,2
Minimum heat output (80/60 °C)	kW	5,0	7,2	9,4	11,4
Minimum heat output (50/30 °C)	kW	5,4	7,8	10,2	12,3
Energetic efficiency 92/42/CEE		★★★★	★★★★	★★★★	★★★★
Nominal efficiency (80/60 °C)	%	97,4	97,2	97,3	97,2
Nominal efficiency (50/30 °C)	%	105	105	105,5	105,1
Efficiency at 30%	%	108,4	108,1	108,2	108,1
Exchanger minimum flow	l/h	800	1500	2000	2250
NOx emissions (EN 297 A3)	mg/kWh	29,8	34,8	39,5	24,7
Maximum working temperature	°C	80	80	80	80
Maximum water temperature	°C	85	85	85	85
Water content	l	2,81	4,98	8,34	9,83
Condensate quantity	l/h	4,1	7,3	9,2	11,1
Maximum working pressure	bar	4	4	4	4
Minimum working pressure	bar	0,5	0,5	0,5	0,5
Heating temperature range	°C	25/80	25/80	25/80	25/80
Coaxial flue system Ø	mm	80/125	80/125	110/160	110/160
Dual flue system Ø	mm	80	80	110	110
Fan pressure drop	Pa	200	200	200	200
Grade of protection		IP21	IP21	IP21	IP21
Gas type		Nat. gas/GPL	Nat. gas/GPL	Nat. gas/GPL	Nat. gas/GPL
Gas supply pressure (G20/G31)	mbar	20/37	20/37	20/37	20/37
Auxiliary electrical power consumption - Full load $e_{lmax}$	W	100	117	146	185
Auxiliary electrical power - Partial load $e_{lmin}$	W	24	24	24	24
Auxiliary electrical power - Stand-by $P_{SB}$	W	2,7	3	3	3
Weight	kg	60	70	104	109
Dimensions	h x l x p	904x600x681	904x600x681	1221x600x681	1221x600x681
Chimney losses (burner off)	%	0,1	0,1	0,1	0,1
Power consumption	W	190	210	275	320
<b>At maximum output</b>					
Combustion efficiency	%	98	97,8	97,9	97,8
Chimney losses	%	2	2,2	2,1	2,2
Heat losses through the casing	%	0,6	0,6	0,6	0,6
Maximum flue temperature	°C	92	76	70	70
CO <sub>2</sub>	%	9,0	9,0	9,0	9,2
O <sub>2</sub>	%	4,8	4,8	4,8	4,5
Air-fuel ratio AFR	%	30	30	30	27
Flue mass flow rate	kg/h	0,021	0,031	0,040	0,047
<b>At minimum output</b>					
Maximum flue temperature	°C	58	55	55	55
CO <sub>2</sub>	%	8,5	8,5	8,5	9,0
O <sub>2</sub>	%	5,7	5,7	5,7	4,8
Air-fuel ratio AFR	%	38	38	38	30
Flue mass flow rate	kg/h	0,002	0,004	0,005	0,005

## Elements of the boiler

### Power HT+ 1.50 - 1.70



### Power HT+ 1.90 - 1.110



- |                                  |                                 |                                  |
|----------------------------------|---------------------------------|----------------------------------|
| 1 Control panel                  | thermostat                      | be added, but it must be         |
| 2 Flue gas measuring point       | 13 Condensate siphon            | fixed to the wall and powered    |
| 3 Flue gas connection            | 14 Drain valve                  | externally.                      |
| 4 Power supply terminal block    | 15 Hydraulic pressure sensor    | 23 Mounting point for            |
| 5 Terminal block for the sensors | 16 Ignition transformer         | communication module OCI 345     |
| 6 PCB controller                 | 17 Ignition electrode           | <b>Caution</b>                   |
| 7 Gas valve                      | 18 Ionisation electrode         | Danger of short circuit on       |
| 8 Burner                         | 19 Flame inspection window      | the OCI 345 communication        |
| 9 Flue gas fitting               | 20 Flue gas sensor              | module if it is fixed in another |
| 10 Automatic air vent            | 21 Flow temperature sensor      | emplacement.                     |
| 11 Return temperature sensor     | 22 Mounting point for a maximum | 24 Safety thermostat on the      |
| 12 Overtemperature safety        | of two AVS 75 modules.          | combustion chamber door          |
|                                  | A third AVS 75 module can       |                                  |

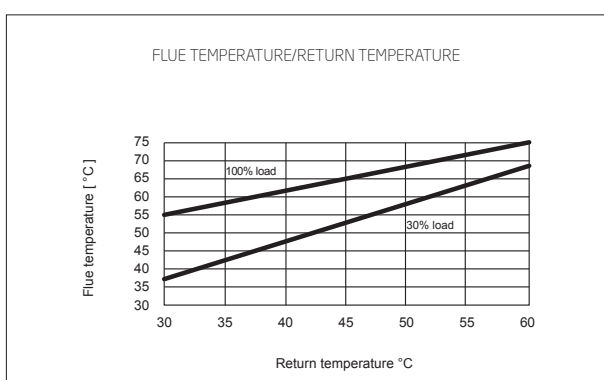
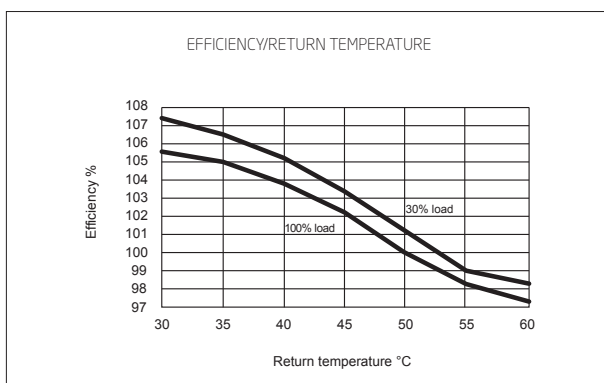
## Burner / Exchanger unit

The air-gas premixing unit, the burner and the primary exchanger are the components that ensure high performances from these condensing heat generators.

The premixing unit is a new conception which, thanks to a new design and the double clapet technique, ensures that the burner constantly has an optimal air/gas ratio independently from the number of fan revs, keeping consumption to a minimum and always guaranteeing correct combustion and consequently a reduction in polluting emissions. On the same subject of energy saving and highest performances, this new component permits achievement of a modulation ratio of 1:9, giving the generator such great flexibility as to be adaptable to great variations in thermal load, as happens increasingly in new generation multifamily homes.

In the range from 50 to 90 kW the stainless steel burner, through the internal diffuser and special micro-perforation on the cylindrical surface, achieves uniform distribution of the air/gas mixture independently of its length. In 110 kW boiler the burner is in metal fibre. This produces a spread of very short flame for optimal heat radiation while minimising the formation of nitrogen oxides.

In the range from 50 to 70 kW the primary exchanger, entirely in stainless steel, comprises one single burner/fumes chamber, which keeps the size of the generator down for high power and actually more versatile installations even in relatively restricted spaces. The two highest powered generators (90 and 110 kW) employ the dual chamber exchanger in stainless steel. The two cylindrical fumes chambers set vertically (burner chamber and condensation chamber) contain the stainless steel coils that carry the primary circuit water. In the upper chamber the hot exhaust gases transfer heat to the system return water in the coils, bringing about condensation of the fumes themselves and thus transferring the latent heat to the water, preheating it prior to its entry into the burner chamber.



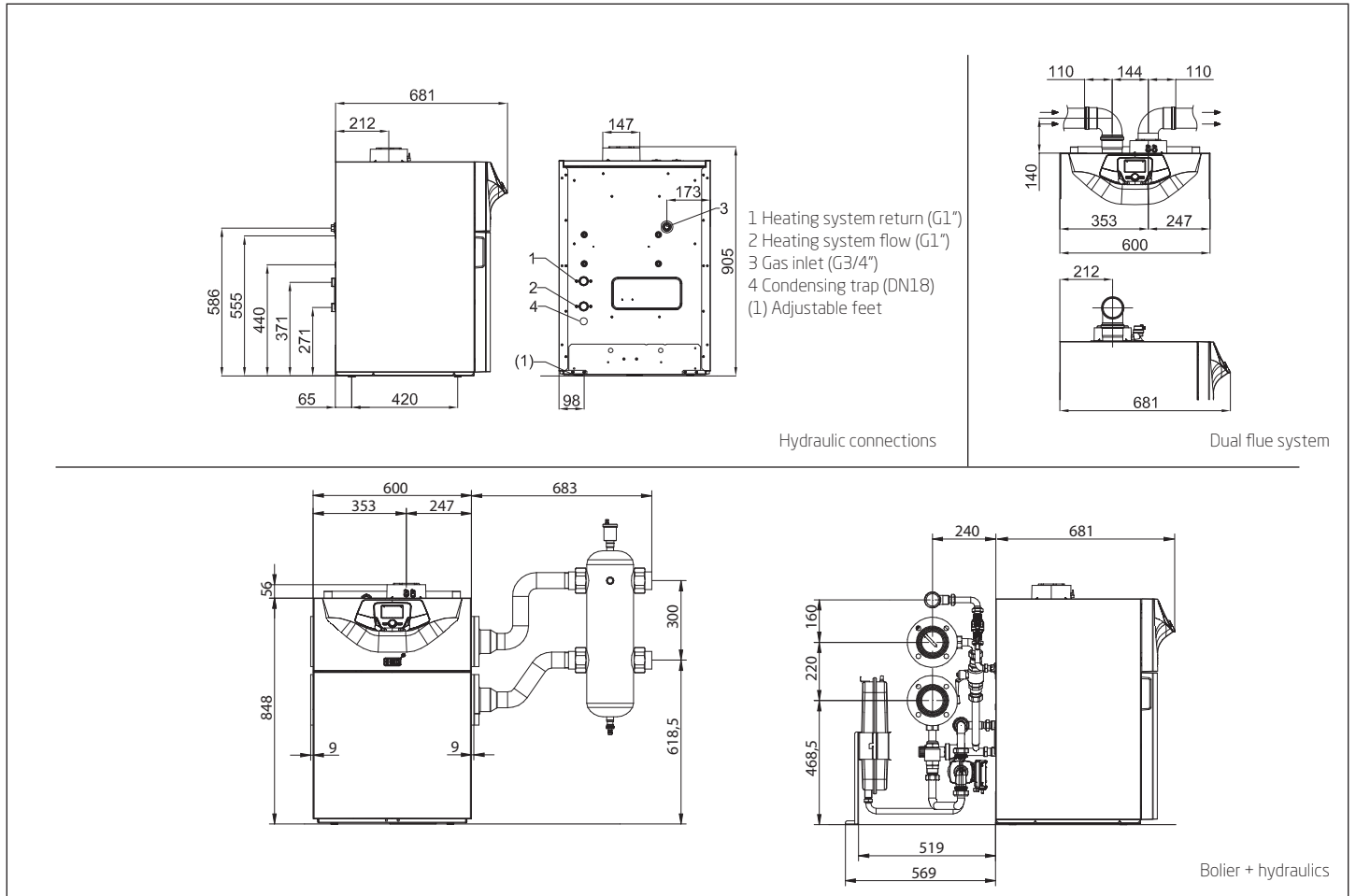
### ErP Pump-main features:

- Remotely speed-controlled, high-efficiency pump fitted with electronically commutated motor (ECM) with permanent-magnet rotor and frequency converter
- Validated components, second generation of the first boiler-integrated variable-speed ECM circulator pumps
- Fits into existing boiler ranges, no expanded space requirements, possible use of existing pump housings, electrical compatibility with existing PWM controllers and no ambient-temperature constraints (EN 60335)
- Energy-optimized due to improved hydraulic efficiency. Use up to 80% less electrical power than conventional constant-speed pumps

## Single installation

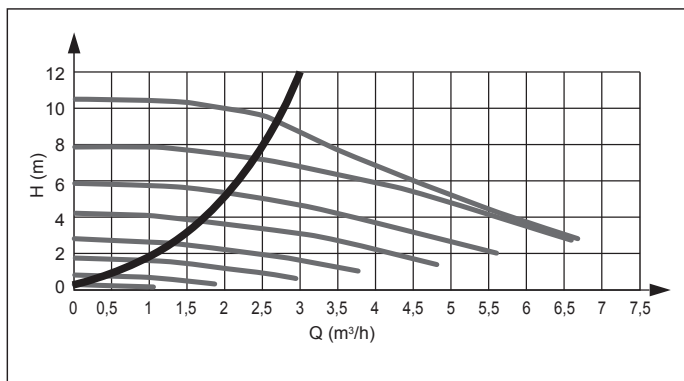
Dimensions

Power HT+ 1.50 - 1.70

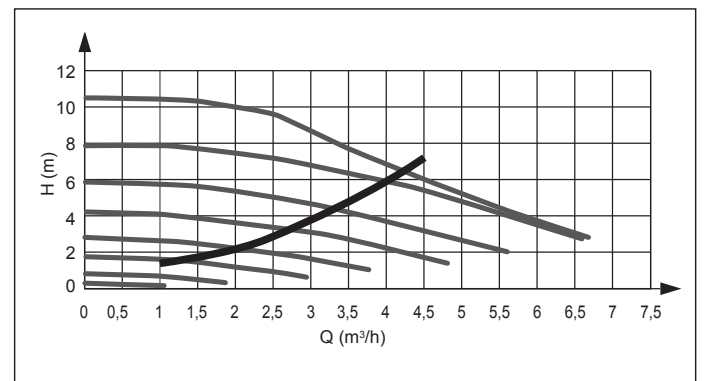


## Hydraulic exchanger losses and pump head curves

Power HT+ 1.50



Power HT+ 1.70

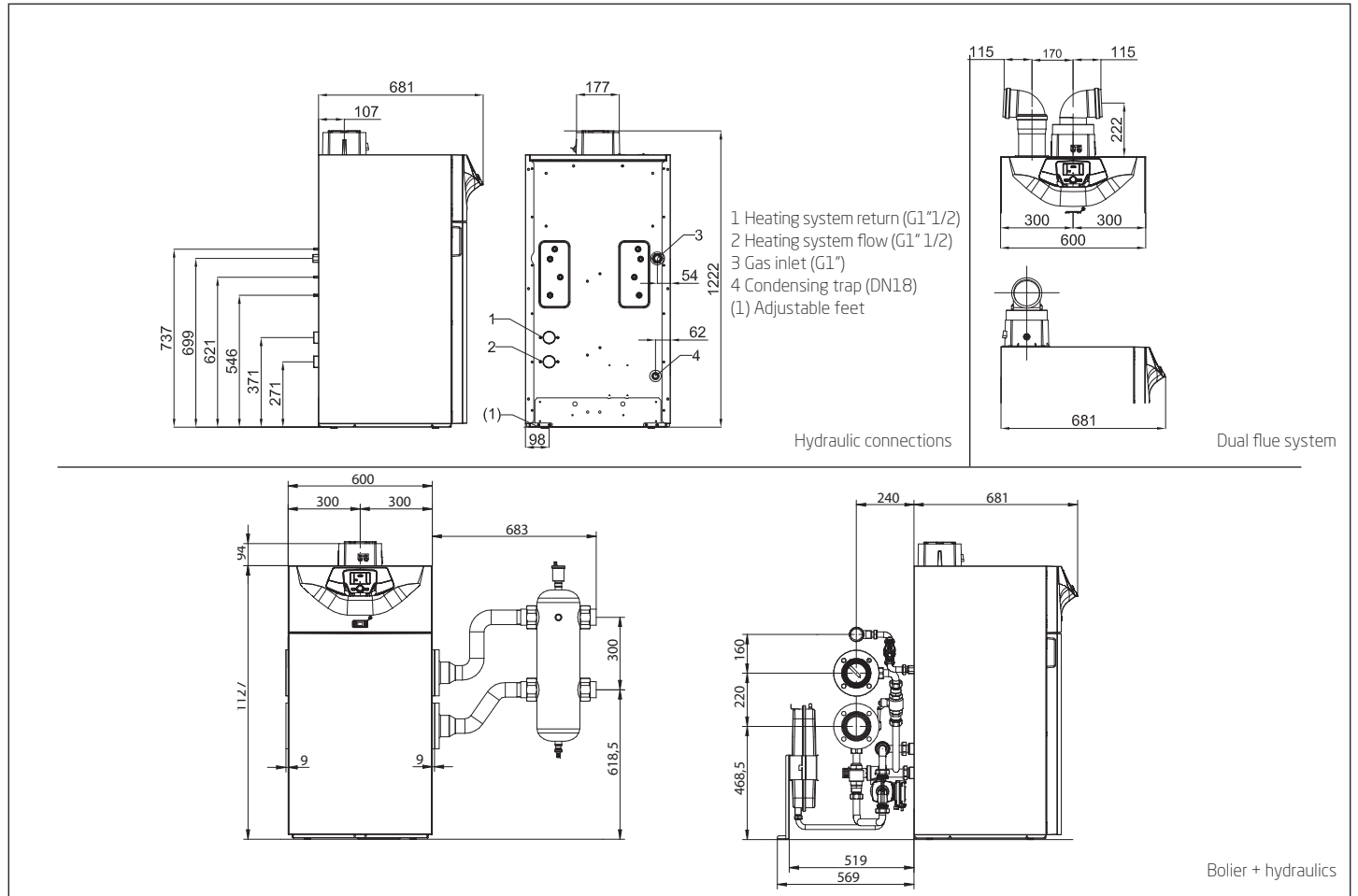


- Hydraulic exchanger losses
- Pump head (in the hydraulic accessory)

# Single installation

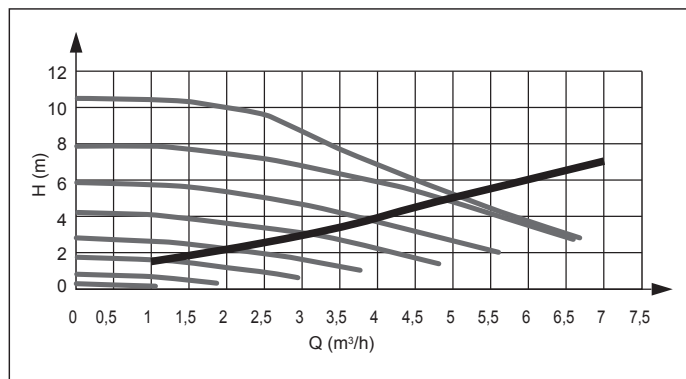
## Dimensions

Power HT+ 1.90 - 1.110

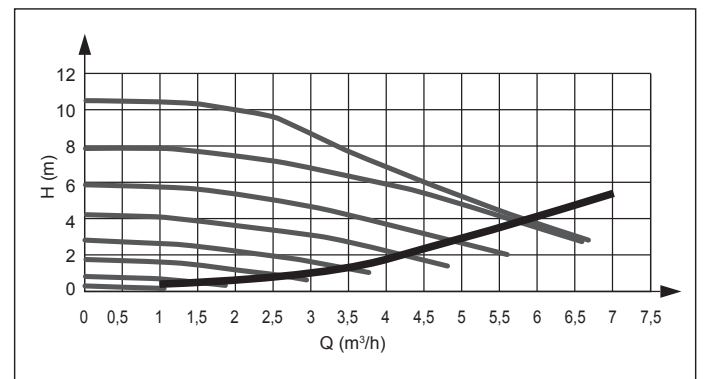


## Hydraulic exchanger losses and pump head curves

Power HT+ 1.90



Power HT+ 1.110



- Hydraulic exchanger losses
- Pump head (in the hydraulic accessory)

## Single installation electronics

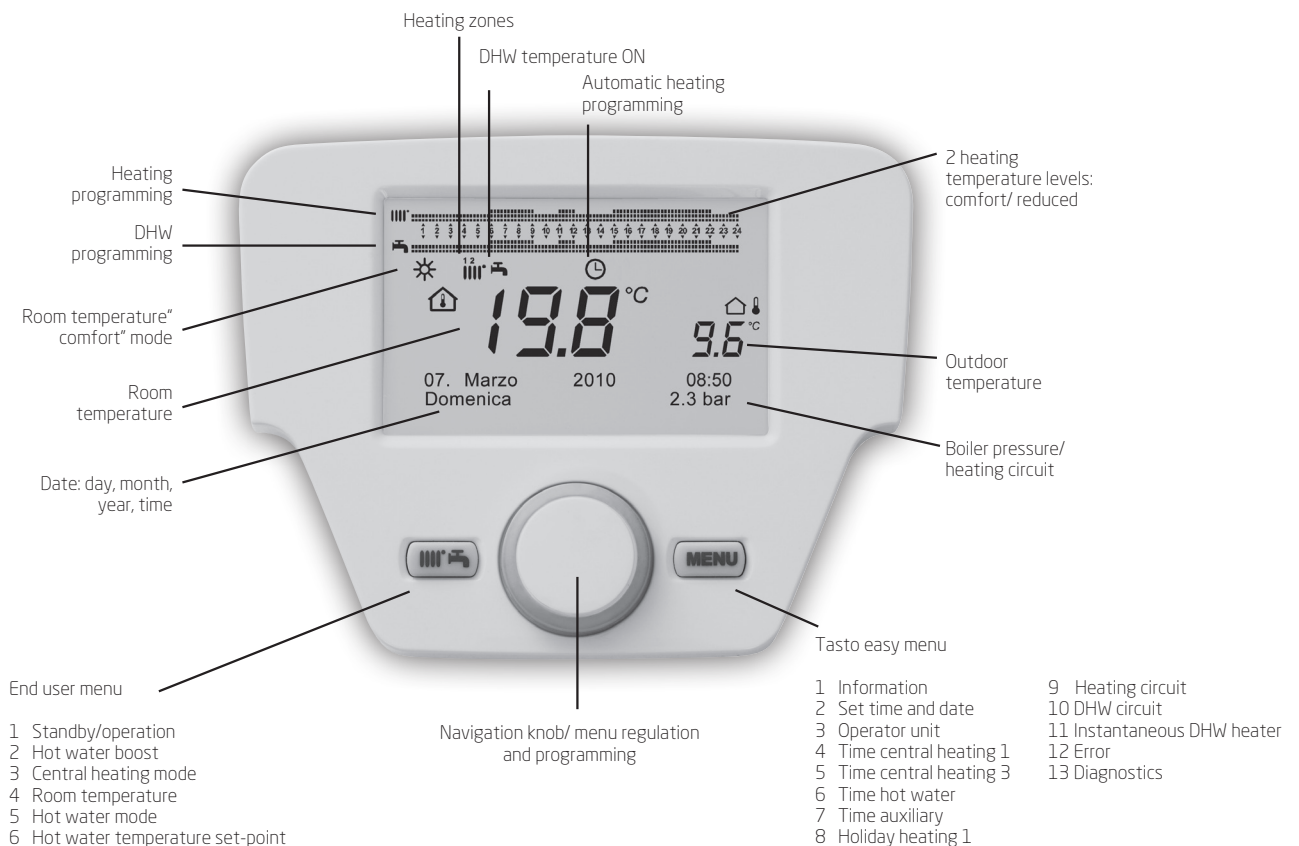
### Remote control Think

All the control, management and communications software (meaning the whole intelligent part of a heating system) resides in the boiler PCB.

Main features:

- Double microprocessor: latest generation software for control of the generator, or also of a complete heating system
- Management of primary circuit pump modulation by PWM controller
- Daily heating programme and generation of hot sanitary water
- Electronic thermometer
- Automatic troubleshooting: signalling and description of possible anomalies
- Built-in climatic regulation (outdoor sensor available as optional)
- Automatic summer/winter changeover with outdoor sensor connected
- Setting of specific functions to control gas valve and combustion quality
- The remote control can be used as a room thermostat. It is possible to install up to 3 remote controls to manage 3 different zones
- Preset for installation in cascade with control software included in the PCB
- Preset for installation in mixing systems

Remote control Think is supplied as standard





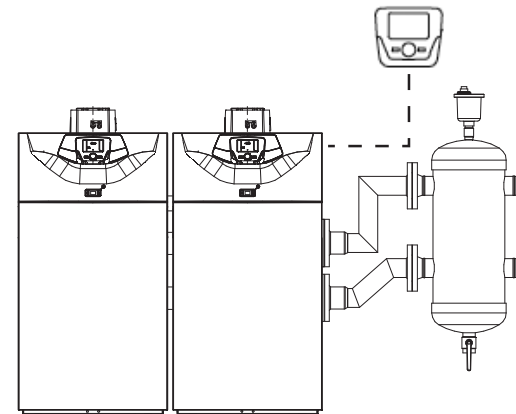
## Electronic accessories for installations

### Remote control THINK



Code 7102442 (wired)  
Code 7102443 (wireless)

The room unit is an accessory for controlling the temperature of the space to be heated. It is not only a modulating climate controller, capable of adjusting the delivery temperature from the boiler to obtain the desired room temperature with greatest efficiency: it also functions as a programmer, setting heating system parameters, including boilers in cascade and various low temperature zones.

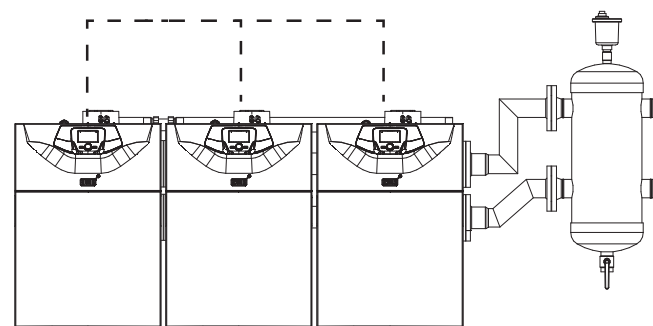


### Bus module (OCI 345)



Code 7104408








The THINK interface for boilers in cascade (BUS MODULE) is an electronic device that allows the bus communication (two wires) between boilers in a cascade system or between a single boiler (or the cascade boiler system) and a mixed zone controller THINK.



## Programming, setting and digital control

	Model	Description	Code
	Remote control THINK	The room unit is an accessory for controlling the temperature of the space to be heated. It is not only a modulating climate controller, capable of adjusting the delivery temperature from the boiler to obtain the desired room temperature with greatest efficiency: it also functions as a programmer, setting heating system parameters, including boilers in cascade and various low temperature zones.	7102442 (wired)  7102443 (wireless)
	Room thermostat THINK	Modulating room thermostat, version with wires (3led interface with support 7102340) or wireless (5led interface with support 7102441). If the control panel is installed in the boiler, it is necessary to buy the wireless aerial (see below). Dimensions: 105x98 mm	7101061 (wired)  7103044 (wireless)
	Room thermostat with timer THINK	Modulating room thermostat with timer, version with wires (3led interface with support 7102340) or wireless (5led interface with support 7102441) Advanced DHW managing. If the control panel is installed in the boiler, it is necessary to buy the wireless aerial (see below). Dimensions 120x98 mm	7102980 (wired)  7102979 (wireless)
	3LED interface with sup- port THINK	This accessory allows to install the wired control panel in a representative room. It can be used to control the room temperature and to set and control a heating circuit including a cascade installation and several low temperature zones.	7102340
	5LED interface with sup- port THINK	This accessory allows to install the wireless control panel in a representative room. It can be used to control the room temperature and to set and control a heating circuit including a cascade installation and several low temperature zones.	7102441
	Wireless aerial THINK	This accessory permits installation of the wireless outdoor sensor. If the 5 LED interface circuit with support is installed this accessory need not be installed.	7102343
	Outdoor sensor THINK (QAC34)	Outdoor sensor is a temperature sensor which communicates to the boiler the temperature outside the dwelling so that the generator adapts the flow temperature to the effective needs of heating the environment as set by the user.	7104873 (wired)  7103027 (wireless)

## Programming, setting and digital control

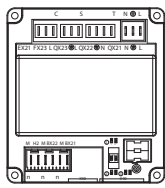
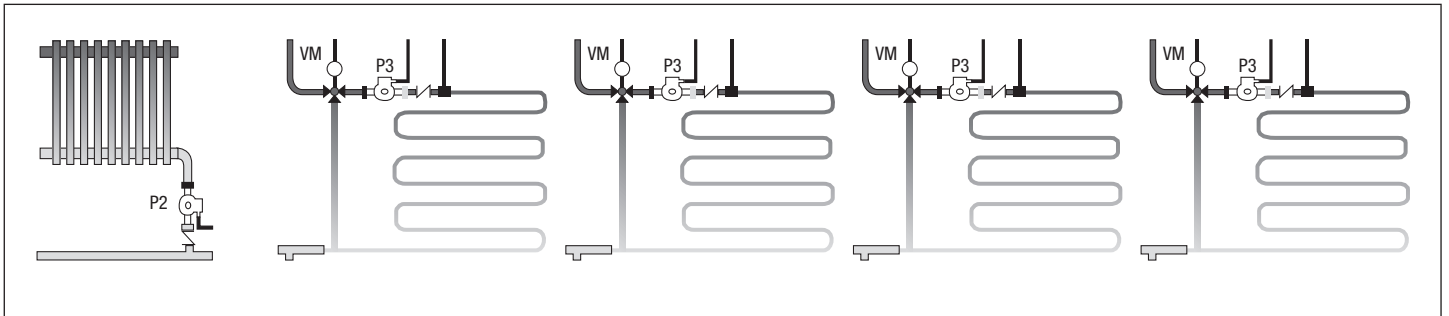
	Model	Description	Code
	Programmable internal module THINK (AVS75)	A heating system with max 16 boilers in cascade can be run, with separate storage for hot sanitary water where required. This accessory, connected to one of the boilers, can directly control the circuit components up to a max of 3 independent relay outlets, 2 inlet temperature sensors, 1 connector for limit thermostat in HV and one control inlet (for example TA). Up to 2 modules installed inside the boiler, for third mixing zone order Programmable external module THINK (AVS75) cod. 7105037	7213872
	Programmable external module THINK (AVS75)	Wall-hung installation, to be ordered for a third mixing zone.	7105037
	Interface kit for boilers in cascade THINK (OCI345)	Interface kit for boilers in cascade is an electronic device that permits communication via bus (two cables) between boilers connected in cascade or between one boiler (or the boilers in cascade) and a mixing zone controller.	7104408
	Heating controller for mixing zones THINK (RVS46)	Heat regulation control unit to control a mixing zone (usually low temperature). It can run a mixing valve, a pump and the flow sensor of the controlled zone. It can also exchange data with the boiler board by means of the connection bus. It includes a flow/return sensor THINK.	7105199
	Heating flow/return sensor THINK (QAD36)	This sensor is necessary to detect the flow temperature of the mixed zones in the heating plant. It have to be connected to the THINK AVS75 or RVS46.	KHG 71407891
	Hot water temperature sensor	This is the sensor that detects the DHW tank temperature.	KHG 71407681
	Sensor for solar controller	Sensor connected to the electronic platform THINK that detects the temperature of the solar collectors.	LNC 71000004

## Configurations

<p>AS STANDARD</p>	<p>AVS75 MIX ZONE TEMP. SENSOR REMOTE CONTROL</p>	<p>AS STANDARD</p> <p>HOT WATER TEMPERATURE SENSOR</p>	<p>AVS75 MIX ZONE TEMP. SENSOR</p>

<p>n°2 AVS75</p>		<p>n°2 MIX ZONE TEMP. SENSOR</p>

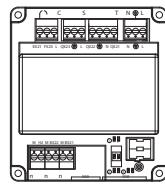
<p>n°3 AVS75</p>		<p>n°3 MIX ZONE TEMP. SENSOR</p>	



n°3 AVS75



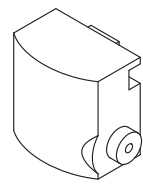
n°1 BUS  
MODULE



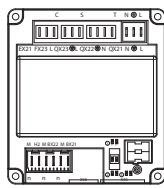
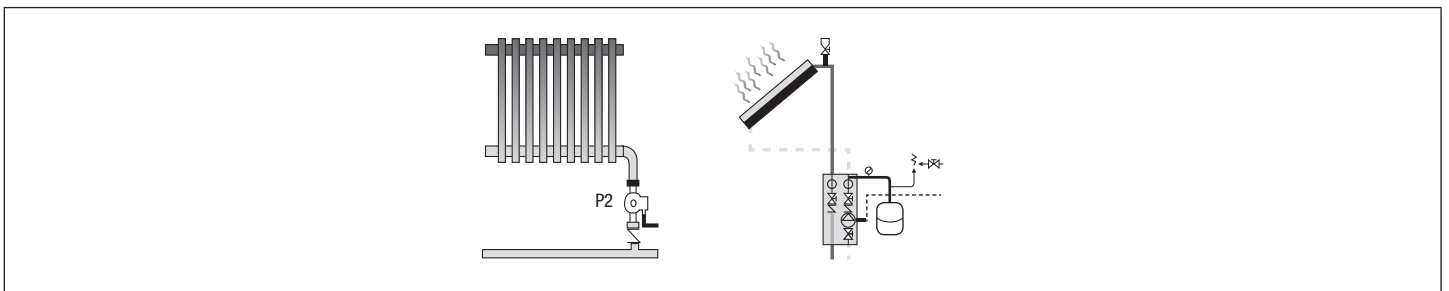
MIX ZONE  
CONTROL



REMOTE CONTROL



n°4 MIX ZONE  
TEMP. SENSOR



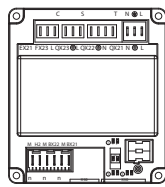
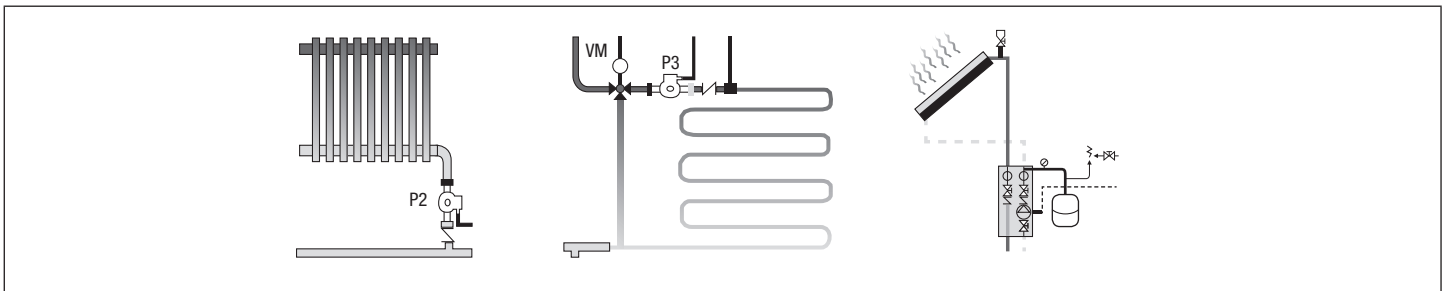
AVS75



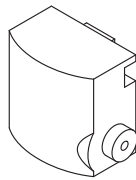
SOLAR TEMP. SENSOR



TANK TEMP. SENSOR



n°2 AVS75



MIX ZONE  
TEMP. SENSOR



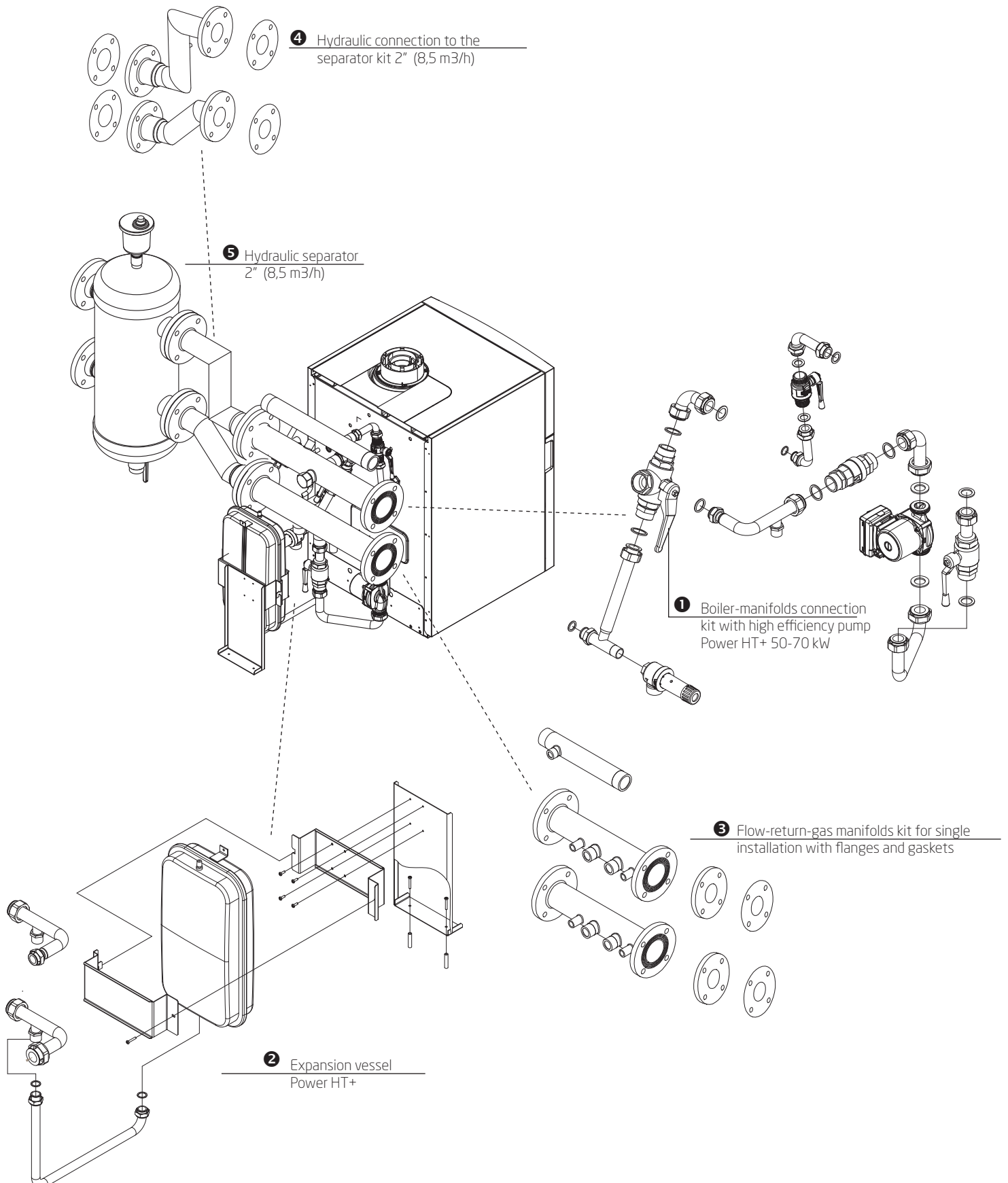
SENSOR FOR  
SOLAR CONTROLLER



HOT WATER  
TEMPERATURE SENSOR

## Single installation

Power HT+ 1.50 - 1.70



## Installation kit

### 1 Boiler-manifolds connection kit with high efficiency pump Power HT+ 50-70 kW

Kit consisting of:

- Gas manifold connection with valve G1"
- 2 way shutoff valve on flow manifold G1¼"
- 2 way shutoff valve on return manifold G1¼"
- Non return valve G1¼"
- Pump UPML 25/105
- Cap G1¼"
- Pipes and nipples

### 2 Expansion vessel Power HT+

Kit consisting of:

- Boiler-expansion vessel connection pipe
- Expansion vessel 10 lt
- Expansion vessel support brackets

### 3 Flow-return-gas manifolds kit for single installation with flanges and gaskets

Kit consisting of:

- Gas manifold 2"
- Flow manifold 3" DN80 PN6
- Return manifold 3" DN80 PN6
- Flanges and gaskets

### 4 Hydraulic connection to the separator kit 2" (8,5 m³/h)

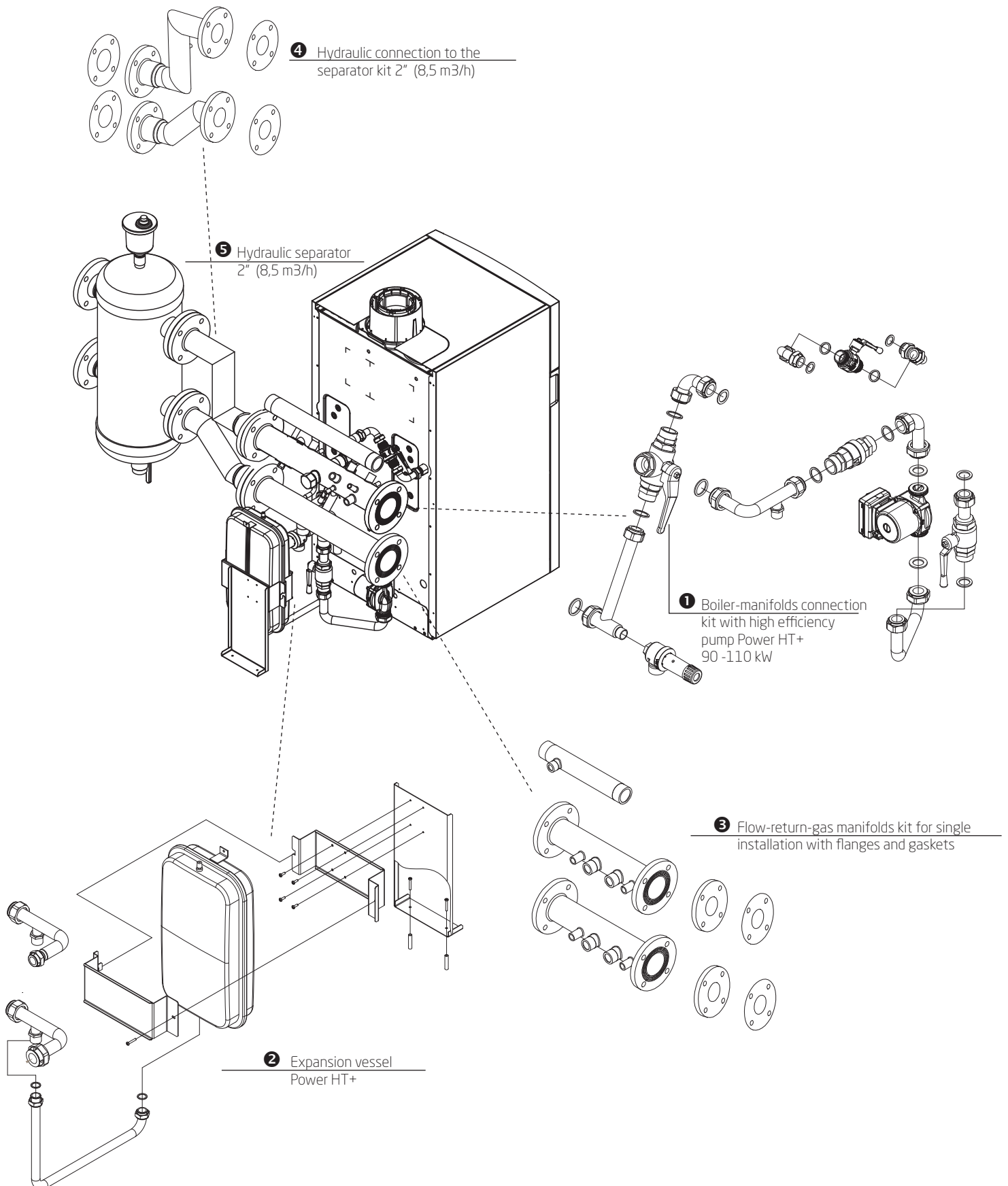
Kit consisting of:

- Flow/return manifolds to the hydraulic separator, with insulation, gaskets and flanges

### 5 Hydraulic separator 2" (8,5 m³/h)

## Single installation

Power HT+ 1.90 - 1.110





## Installation kit

### 1 Boiler-manifolds connection kit with high efficiency pump Power HT+ 90-110 kW

Kit consisting of:

- Gas manifold connection with valve G1"
- 2 way shutoff valve on flow manifold G1¼"
- 2 way shutoff valve on return manifold G1¼"
- Non return valve G1¼"
- Pump UPML 25/105
- Cap G1¼"
- Pipes and nipples

### 2 Expansion vessel Power HT+

Kit consisting of:

- Boiler-expansion vessel connection pipe
- Expansion vessel 10 lt
- Expansion vessel support brackets

### 3 Flow-return-gas manifolds kit for single installation with flanges and gaskets

Kit consisting of:

- Gas manifold 2"
- Flow manifold 3" DN80 PN6
- Return manifold 3" DN80 PN6
- Flanges and gaskets

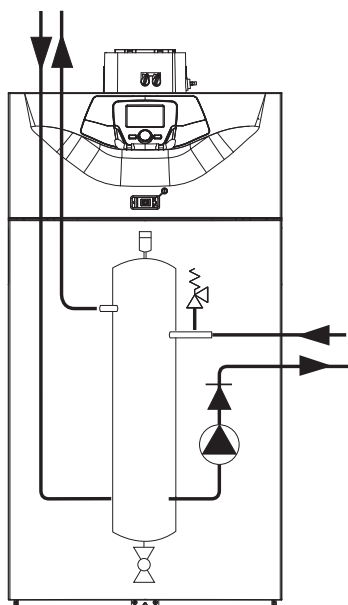
### 4 Hydraulic connection to the separator kit 2" (8,5 m³/h)

Kit consisting of:

- Flow/return manifolds to the hydraulic separator, with insulation, gaskets and flanges

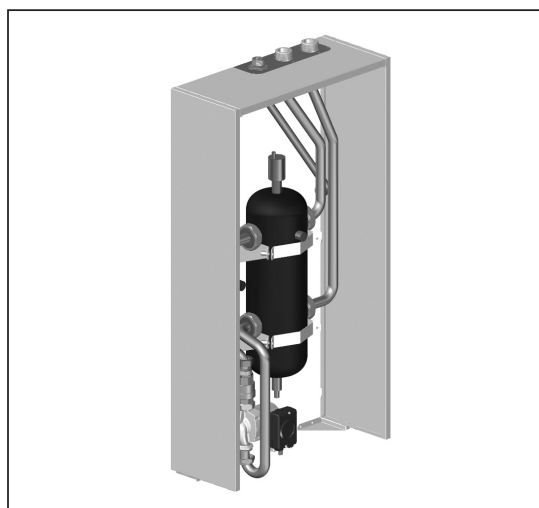
### 5 Hydraulic separator 2" (8,5 m³/h)

## Hydraulic separator back connection - single installation

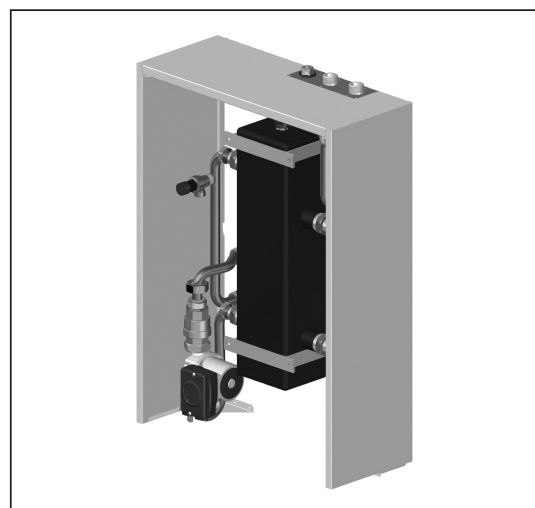


This new accessory is a hidden separator that can be installed behind the boiler: it has been designed to facilitate the single installation of Power HT+ boilers, to save space and provide an easy way for installation. The accessory can be easily fixed in the rear side of the boiler.

The expansion vessel must be installed on site, outside the accessory to mount the hydraulic separator behind the boiler.




















Hydraulic separator - for single installation  
Power HT+ 50/70 kW  
Dimensions 848 x 600 x 250 mm  
Code 7607401



Hydraulic separator - for single installation  
Power HT+ 90/110 kW  
Dimensions 1147 x 600 x 250 mm  
Code 7606357







## Dual flue system accessories Ø 80

Power HT+ 1.50-1.70

Picture	Description	Code
	PP dual flue system Ø 80 it includes: flue reduction, intake connection	KHG 71408901
	PP pipe extension Ø 80 L=1000 mm	KHG 71405941
	PP pipe extension Ø 80 L=500 mm	KHG 71405991
	PP pipe extension Ø 80 L=250 mm	7107183
	PP 90° bend Ø 80	KHG 71405921
	PP 45° bend Ø 80	KHG 71405931
	Pipe Ø 80 centring kit (pack of 5)	KHG 71403741
	Clamp centring kit Ø 80	KHG 71410611
	Pipe Ø 80 supporting bracket (pack of 5)	KHG 71403731
	Internal sealing collar Ø 80	KHG 71401851
	External sealing collar Ø 80	KHG 71401841
	Coaxial vertical chimney terminal 80/125	KHG 71409351
	Dual flue pipes adapter for coaxial chimney	KHG 71409381
	Flue terminal Ø 80	LSD 79000015
	Dual flue terminal Ø 80	KHG 71401041
	Flat roof tile Ø 125 to be used with a vertical chimney terminal	KHG 71409361
	Pitched roof tile Ø 125 to be used with a vertical chimney terminal; it is adjustable from 15° to 45°	KHG 71409371







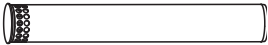



## Flexible ducting system accessories

Power HT+ 1.50-1.70

Picture	Description	Code
	PP flexible pipe Ø 80 L= 1,5 m	KHG 71410571
	PP flexible pipe Ø 80 L= 20 m	KHG 71410581
	PP tee joint Ø 80 with supporting bracket and condensate drainings	KHG 71410591
	PP 90° bend Ø 80 with supporting bracket	KHG 71410601
	Flexible centring kit Ø 80 (pack of 3)	KHG 71410621
	Triple lips gaskets kit Ø 80 (pack of 5)	KHG 71411121

# Dual flue system accessories Ø 110

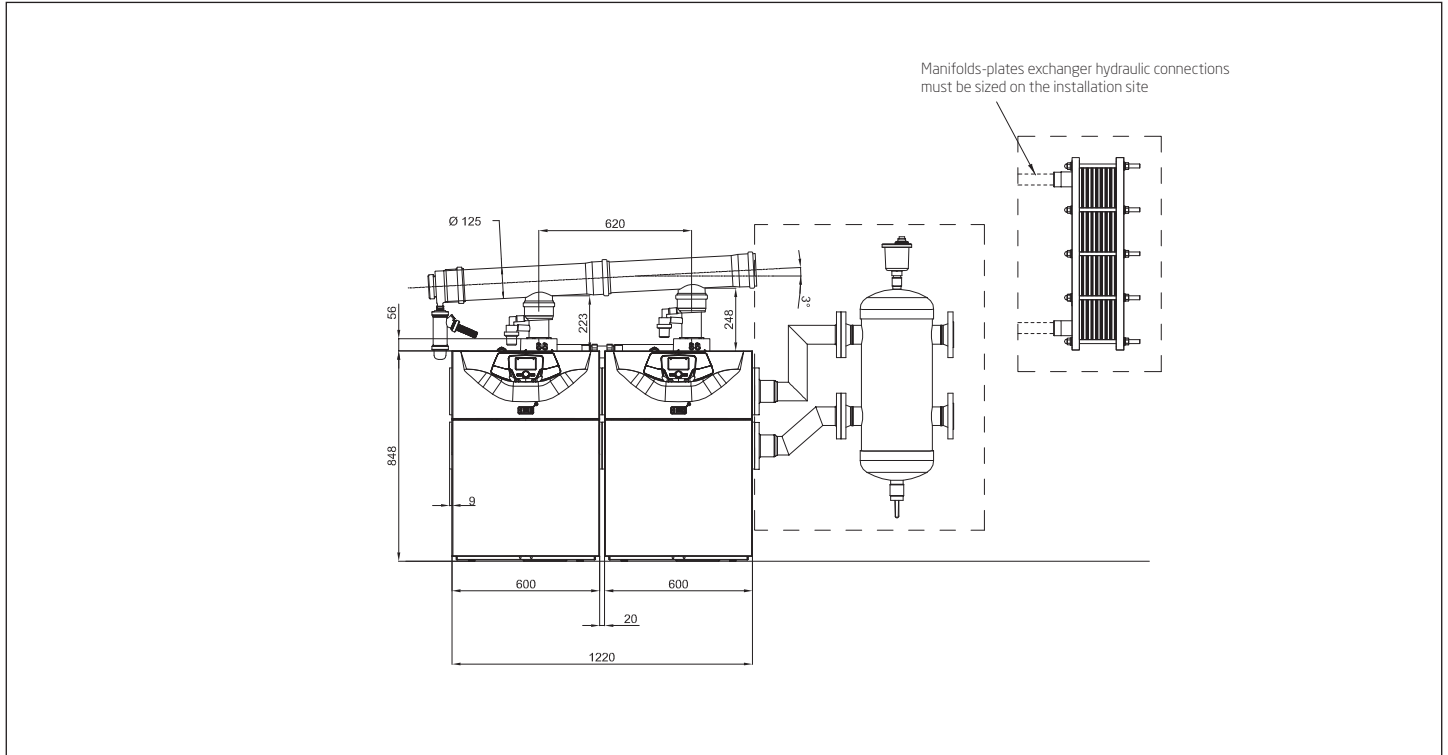
Power HT+ 1.90-1.110

Picture	Description	Code
	PP dual flue kit Ø 110/110	7106314
	PP pipe extension Ø 110 L=1000 mm	KUG 71413321
	PP pipe extension Ø 110 L=500 mm	KUG 71413311
	PP pipe extension Ø 110 L=250mm	7107185
	PP 90° bend Ø 110	KUG 71413301
	PP 45° bend Ø 110	KUG 71413291
	PP vertical chimney terminal Ø 110	KUG 71413281
	PP horizontal chimney terminal Ø 110	KUG 71413271
	Flat roof tile to be used with a vertical chimney terminal Ø 110/160	KHG 71410481
	Pitched roof tile to be used with a vertical chimney terminal 110/160; it is adjustable from 15° to 45°	KHG 71410491

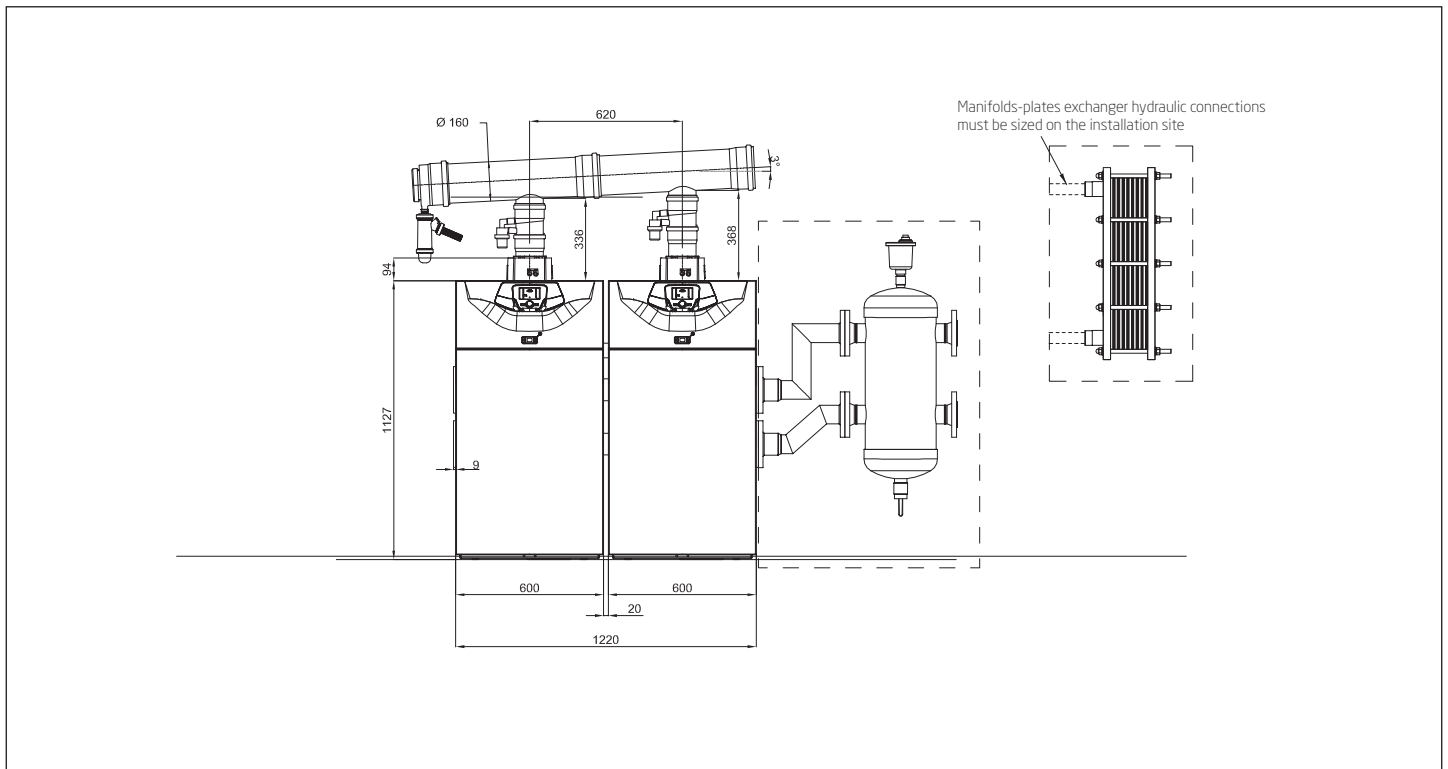
## Cascade installation

Dimensions (2 boilers)

Power HT+ 1.50 - 1.70



Power HT+1.90-1.110



Note: -flanged flow-return hydraulic manifolds, diameter 3" with flange DN80 PN6;  
- 2" gas manifold, threaded internally

## List of accessories, 2 boilers in cascade

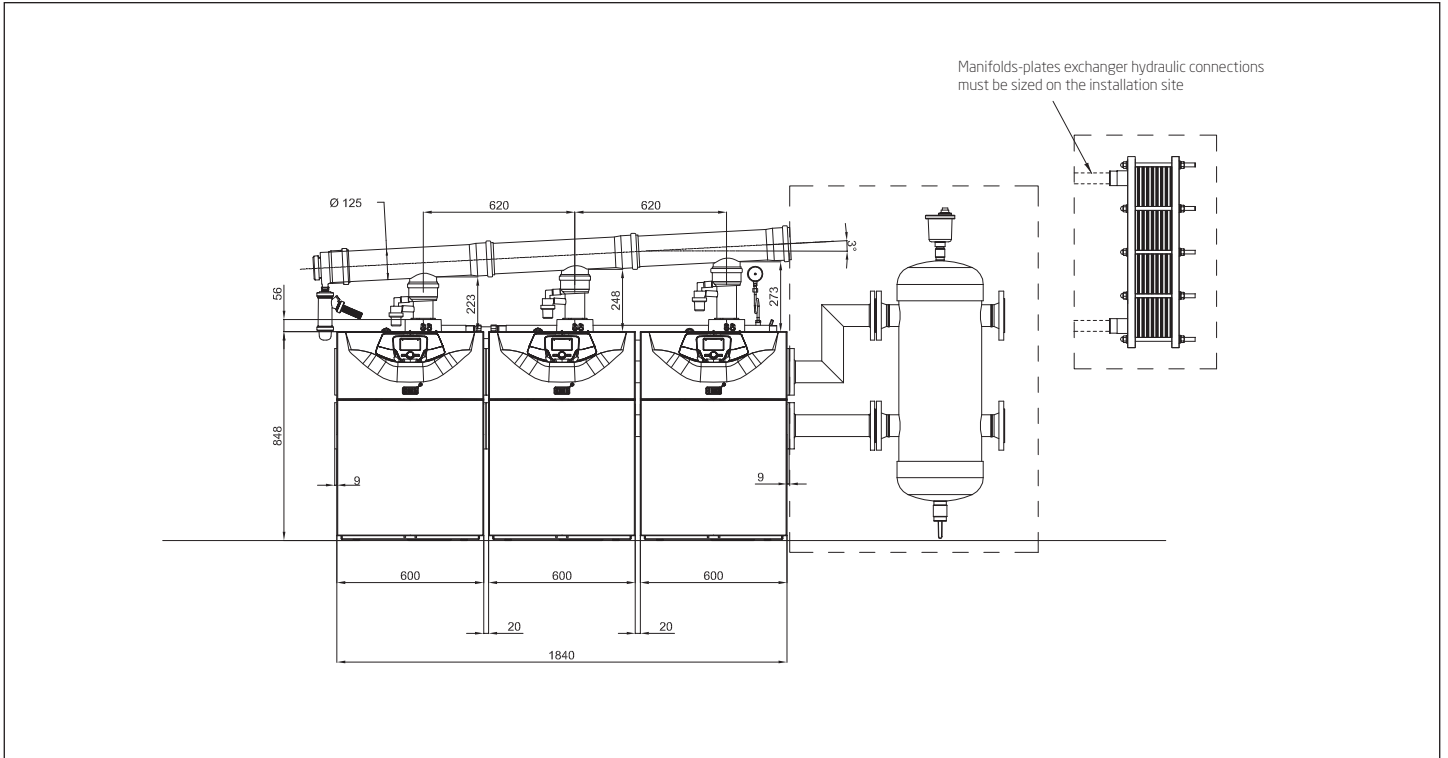
	Code	100 kW	140 kW	180 kW	220 kW	
BOILERS	Power HT+ 1.50	7612418	2			
	Power HT+ 1.70	7612419		2		
	Power HT+ 1.90	7612420			2	
	Power HT+ 1.110	7612421				2
THERMOREGULATION	Outdoor sensor THINK (QAC 34)	7104873	1	1	1	1
	Interface kit for boilers in cascade THINK (BUS MODULE OCI 345)	7104408	2	2	2	2
	Hot water temperature sensor	KHG 71407681	1	1	1	1
	Programmable internal module THINK (AVS75) - max 2 mixing zones	7213872	max 2	max 2	max 2	max 2
	Programmable external module THINK (AVS75) - third mixing zone	7105037	max 1	max 1	max 1	max 1
HYDRAULIC ACCESSORIES	Flow-return-gas manifolds, insulation, flanges and gaskets kit for 2 boilers 50-110 kW*	7662216	1	1	1	1
	Expansion vessel kit	7213919	2	2	2	2
	Boiler-manifolds connection kit 50-70 kW with high efficiency pump	7213843	2	2		
	Boiler-manifolds connection kit 90-110 kW with high efficiency pump	7213806			2	2
	Hydraulic connection kit to the separator 8,5 m <sup>3</sup> /h G2"	7218613	1	1		
	Hydraulic separator 8,5 m <sup>3</sup> /h G2"	LSD 79000031	1	1		
	Hydraulic connection kit to the separator 18 m <sup>3</sup> /h DN65	7218614			1	1
	Hydraulic separator 18 m <sup>3</sup> /h DN65	LSD 79000032			1	1
FLUE ACCESSORIES	Shutter kit Ø110/80 with condensing trap	7106820	2	2		
	Shutter kit Ø110/110 with condensing trap	7106821			2	2
	Flue pipe kit for 2 boilers Ø125/110	7107168	1	1		
	Flue pipe kit for 2 boilers Ø160/110	7107152			1	1
	PP Pipe extension Ø110 L=250mm	7107185			2	2

\* This accessory is available also without gas line (cod. 7662220)

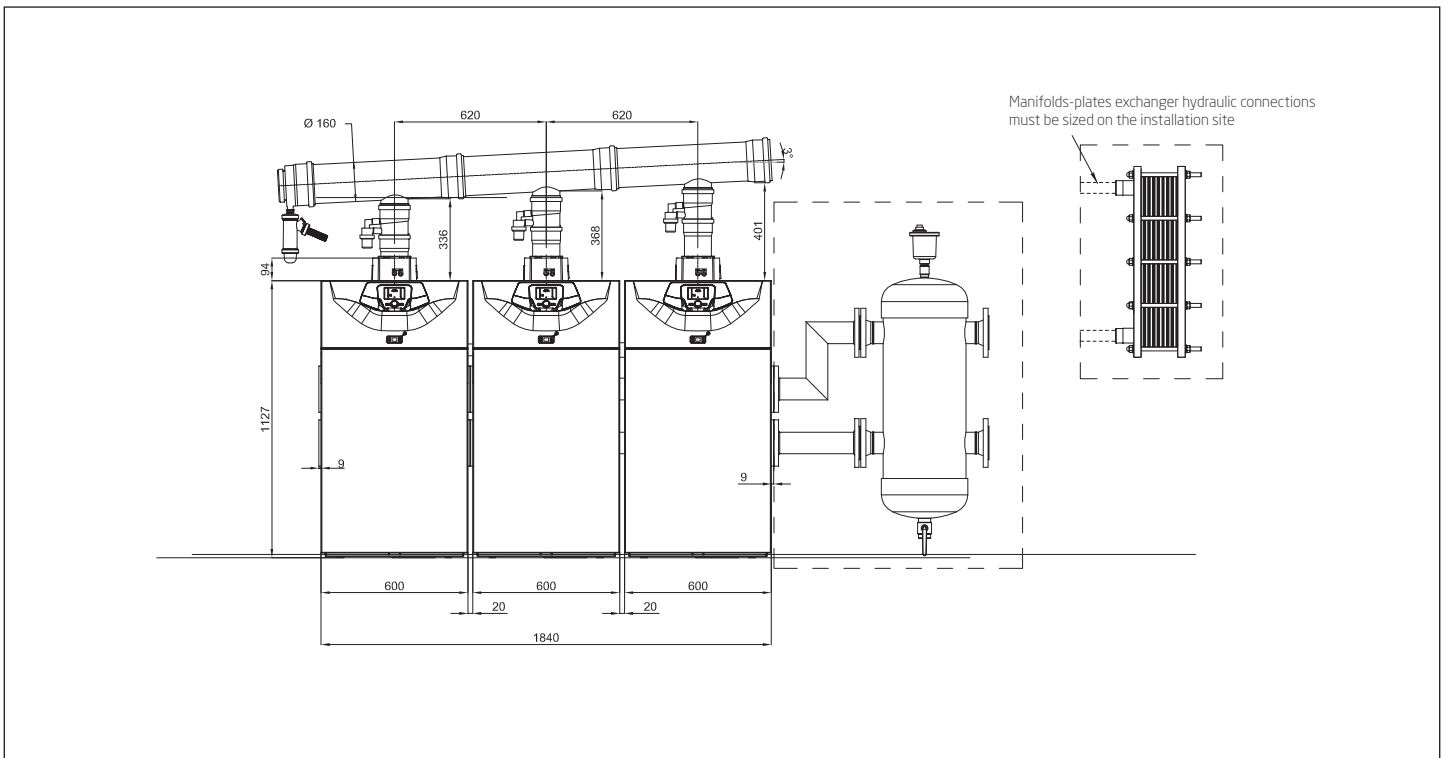
## Cascade installation

Dimensions (3 boilers)

Power HT+ 1.50 - 1.70



Power HT+1.90-1.110



Note: -flanged flow-return hydraulic manifolds, diameter 3" with flange DN80 PN6;  
- 2" gas manifold, threaded internally



# List of accessories, 3 boilers in cascade

	Code	150 kW	210 kW	270 kW	330 kW	
BOILERS	Power HT+ 1.50	7612418	3			
	Power HT+ 1.70	7612419		3		
	Power HT+ 1.90	7612420			3	
	Power HT+ 1.110	7612421				3
THERMOREGULATION	Outdoor sensor THINK (QAC 34)	7104873	1	1	1	1
	Interface kit for boilers in cascade THINK (BUS MODULE OCI 345)	7104408	3	3	3	3
	Hot water temperature sensor	KHG 71407681	1	1	1	1
	Programmable internal module THINK (AVS75) - max 2 mixing zones	7213872	max 2	max 2	max 2	max 2
	Programmable external module THINK (AVS75) - third mixing zone	7105037	max 1	max 1	max 1	max 1
HYDRAULIC ACCESSORIES	Flow-return-gas manifolds, insulation, flanges and gaskets kit for 2 boilers 50-110 kW*	7662216	1	1	1	1
	Flow-return-gas manifolds, insulation, flanges and gaskets kit for third boiler 50-110 kW**	7662214	1	1	1	1
	Expansion vessel kit	7213919	2	2	2	2
	Boiler-manifolds connection kit 50-70 kW with high efficiency pump	7213843	3	3		
	Boiler-manifolds connection kit 90-110 kW with high efficiency pump	7213806			3	3
	Hydraulic connection kit to the separator 18 m <sup>3</sup> /h DN65	7218614	1	1		
	Hydraulic separator 18 m <sup>3</sup> /h DN65	LSD 79000032	1	1		
	Hydraulic connection kit to the separator 28 m <sup>3</sup> /h DN80	7218615			1	1
	Hydraulic separator 28 m <sup>3</sup> /h DN80	LSD 79000033			1	1
	FLUE ACCESSORIES	Shutter kit Ø110/80 with condensing trap	7106820	3	3	
Shutter kit Ø110/110 with condensing trap		7106821			3	3
Flue pipe kit for 2 boilers Ø125/110		7107168	1			
Flue pipe kit for 2 boilers Ø160/110		7107152		1	1	
Flue pipe kit for the third boiler Ø125/110		7107177	1			
Flue pipe kit for the third boiler Ø160/110		7107163		1	1	
PP Pipe extension Ø110 L=250mm		7107185	1	3	3	3
Flue pipe kit for 2 boilers Ø200		7107156				1
Flue pipe kit for the third boiler Ø200		7107164				1

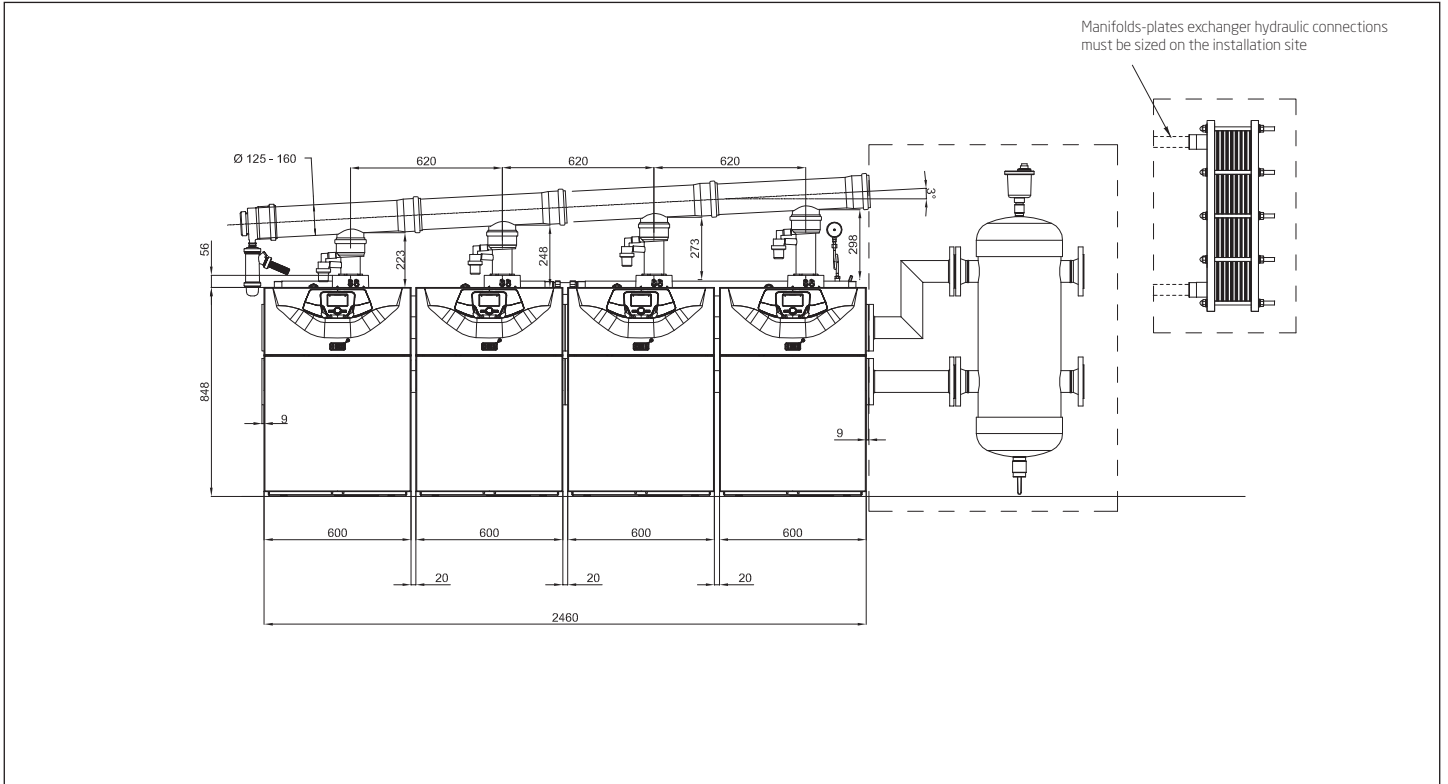
\* This accessory is available also without gas line (cod. 7662220)

\*\* This accessory is available also without gas line (cod. 7662218)

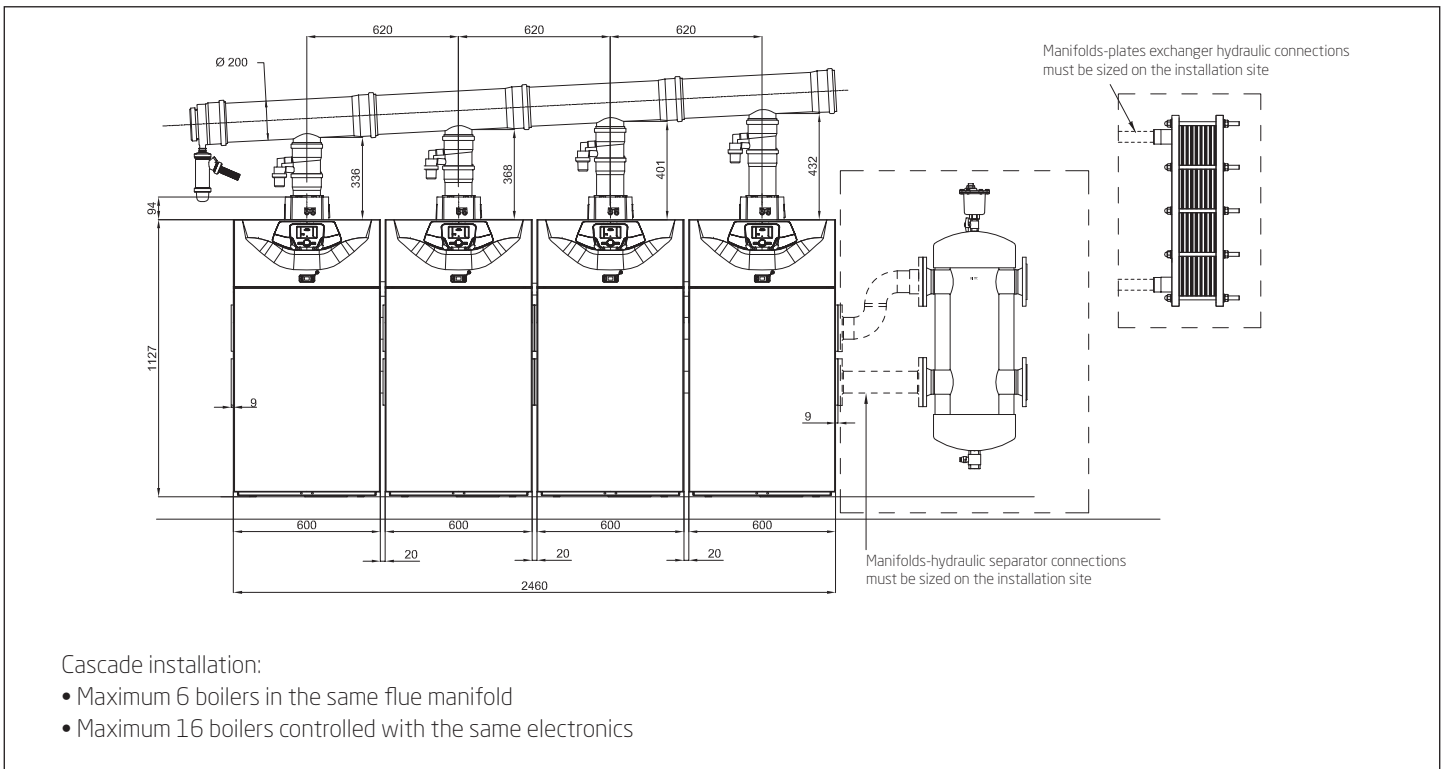
## Cascade installation

Dimensions (4 boilers)

Power HT+ 1.50 - 1.70



Power HT+1.90-1.110



Cascade installation:

- Maximum 6 boilers in the same flue manifold
- Maximum 16 boilers controlled with the same electronics

Note: - flanged flow-return hydraulic manifolds, diameter 3" with flange DN80 PN6;  
 - 2" gas manifold, threaded internally




# List of accessories, 4 boilers in cascade

	Code	200 kW	280 kW	360 kW	440 kW	
BOILERS	Power HT+ 1.50	7612418	4			
	Power HT+ 1.70	7612419		4		
	Power HT+ 1.90	7612420			4	
	Power HT+ 1.110	7612421				4
THERMOREGULATION	Outdoor sensor THINK (QAC 34)	7104873	1	1	1	1
	Interface kit for boilers in cascade THINK (BUS MODULE OCI 345)	7104408	4	4	4	4
	Hot water temperature sensor	KHG 71407681	1	1	1	1
	Programmable internal module THINK (AVS75) - max 2 mixing zones	7213872	max 2	max 2	max 2	max 2
	Programmable external module THINK (AVS75) - third mixing zone	7105037	max 1	max 1	max 1	max 1
HYDRAULIC ACCESSORIES	Flow-return-gas manifolds, insulation, flanges and gaskets kit for 2 boilers 50-110 kW*	7662216	2	2	2	2
	Expansion vessel kit	7213919	4	4	4	4
	Boiler-manifolds connection kit 50-70 kW with high efficiency pump	7213843	4	4		
	Boiler-manifolds connection kit 90-110 kW with high efficiency pump	7213806			4	4
	Hydraulic connection kit to the separator 18 m³/h DN65	7218614	1	1		
	Hydraulic separator 18 m³/h DN65	LSD 79000032	1	1		
	Hydraulic connection kit to the separator 28 m³/h DN80	7218615			1	1
	Hydraulic separator 28 m³/h DN80	LSD 79000033			1	1
FLUE ACCESSORIES	Shutter kit Ø110/80 with condensing trap	7106820	4	4		
	Shutter kit Ø110/110 with condensing trap	7106821			4	4
	Flue pipe kit for 2 boilers Ø160/110	7107152	1	1		
	Flue pipe kit for the third boiler Ø160/110	7107163	2	2	2	2
	PP Pipe extension Ø110 L=250mm	7107185	4	4	4	4
	Flue pipe kit for 2 boilers Ø200	7107156			1	1
Flue pipe kit for the third boiler Ø200	7107164			2	2	


\* This accessory is available also without gas line (cod. 7662220)

## Flue accessories

### Cascade installation Power HT+ 1.50-1.70

Picture	Description	Code
	PP flue pipe kit for two boilers Ø 125	7107168
	PP flue pipe kit Ø 125 for the third boiler	7107177
	PP 90° bend Ø 125	KHG 71409441
	PP 45° bend Ø 125 (pack of 2)	KHG 71409451
	PP extension Ø 125 L=1000 mm	KHG 71409461
	PP shutter kit Ø 110/80 with condensing trap	7106820

### Cascade installation Power HT+ 1.90-1.110

Picture	Description	Code
	Shutter kit Ø 110/110 with condensing trap	7106821

# Flue accessories

Cascade installation Power HT+ 1.90-1.110

Picture	Description	Code
	PP flue pipe kit Ø 160 for two boilers	7107152
	PP flue pipe kit Ø 200 for two boilers	7107156
	PP flue pipe kit Ø 160 for the third boiler	7107163
	PP flue pipe kit Ø 200 for the third boiler	7107164
	PP 90° bend Ø 160	KHW 71409781
	PP 90° bend Ø 200	KHW 71409821
	PP extension Ø 160 L=1000 mm	KHW 71409771
	PP extension Ø 110 L=250 mm	7107185
	PP extension Ø 200 L=1000 mm	KHW 71409811

## Flue systems - single installation

The boiler can be easily installed thanks to the flue accessories provided by BAXI, which offer a great flexibility of use. The product is certified for the following flue types:

B23 – C13 – C33 – C43 – C53 – C63 – C83

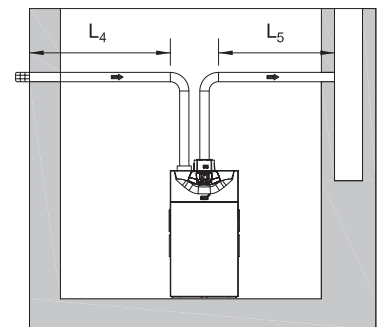
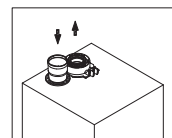
**C63** The maximum pressure drop in the pipes  $\Delta P$  not provided by BAXI must not exceed the values given in the table below.

Flue type	C63	
	Fan pressure drop (*) [Pa]	Flue pipe Ø [mm]
Power HT + 1.50	270	80
Power HT + 1.70	270	80
Power HT + 1.90	320	110
Power HT +1.110	370	110

In case of installation of flue pipe not provided by BAXI, the pipes must be certified for this type of use and for a temperature higher than 100°C. The terminal part of the flue gas pipe must be certified as complying with the EN 1856-1 standard.

**C53** The maximum length of the dual inlet/outlet pipes provided by BAXI are shown in the table below.

Flue type	C53		
	HORIZONTAL		
	Dual flue Ø [mm]	Maximum length L4+L5 [m]	Inlet pipe maximum length L4 [m]
Power HT + 1.50	80+80	60	15
Power HT + 1.70	80+80	27	15 (*)
Power HT+ 1.90	110+110	27	7
Power HT +1.110	110+110	27	7



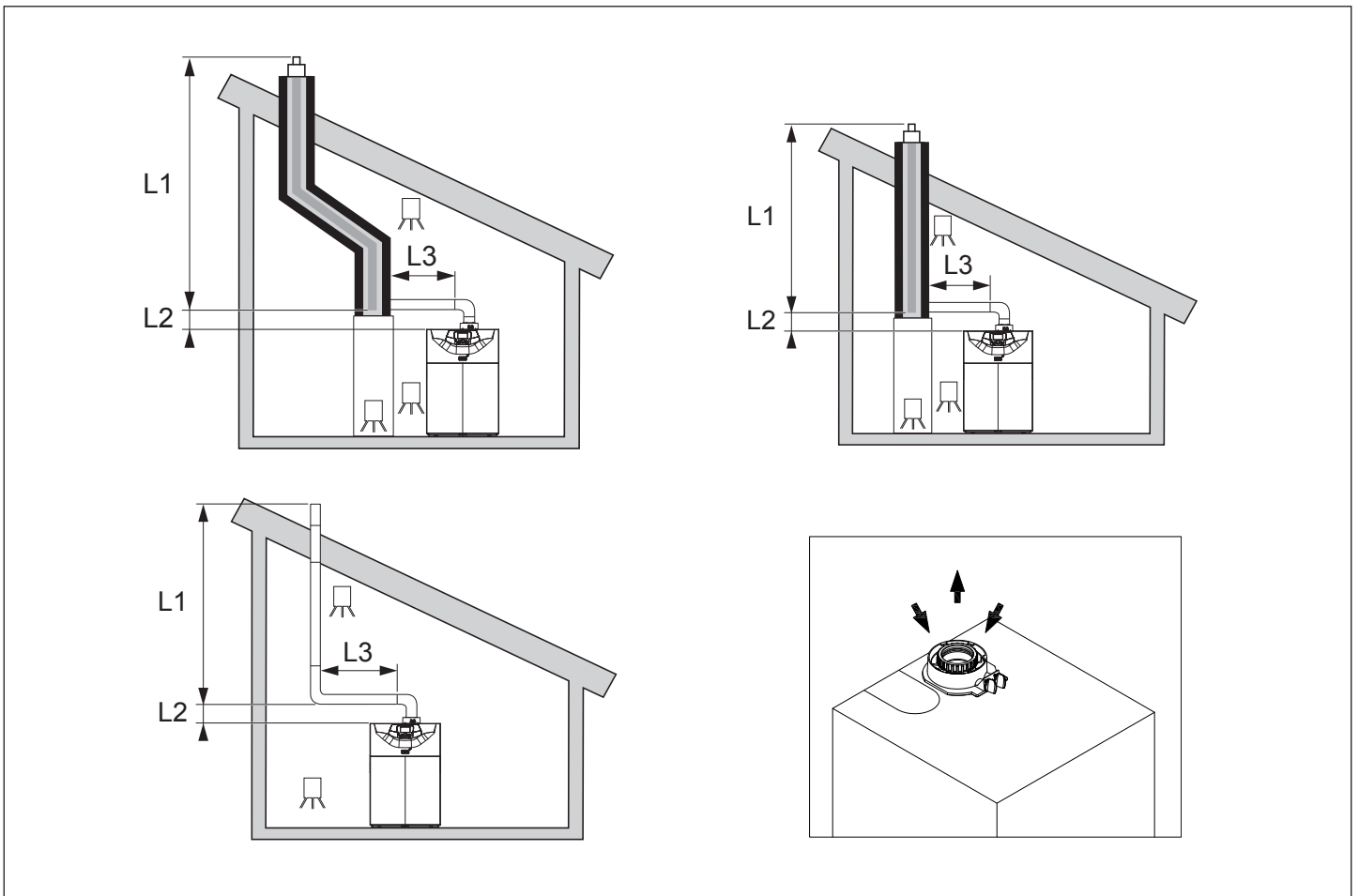
(\*) L5 < 20 m

Do not fit the flue and air duct terminals on opposite walls of the building.

**B23** The below table shows the maximum length of the flue pipe connected to a chimney using flue systems provided by BAXI and air taken from the boiler room.

Flue type	B23		
	VERTICAL		
	Flue pipe Ø [mm]	Type	Maximum length L1+L2 [m]
Power HT + 1.50	80	rigid	20
		flexible	15
Power HT + 1.70	110	rigid	56
	80	rigid	8
		flexible	6
Power HT + 1.90	110	rigid	20
	125		56
Power HT +1.110	110	rigid	56
	125		56

The lengths given in the table are valid for horizontal pipes (L3) with a maximum length of 1 meter+2 bends. For each additional meter of horizontal pipe (L3), subtract 1.2 m from the vertical length L1+L2



For flue pipes provided by BAXI (flue type B23 and C53):

- the insertion of a 90° bend reduces the total length of the pipe by 1 meter.
- the insertion of a 45° bend reduces the total length of the pipe by 0.5 meter.
- the first 90° bend is not taken into account in calculating the maximum length available.

Note: the minimum slope of the flue pipe toward the boiler must be 5 cm every meter of length.

**Caution for other flue installation types:**

C<sub>13</sub>: The terminal parts of the singled-up flue pipe must be installed in a 50 cm square.

C<sub>33</sub>: The terminal parts of the singled-up flue pipe must be installed inside a 50 cm square.

C<sub>43</sub>: The chimney or flue pipe must be suitable for such use.

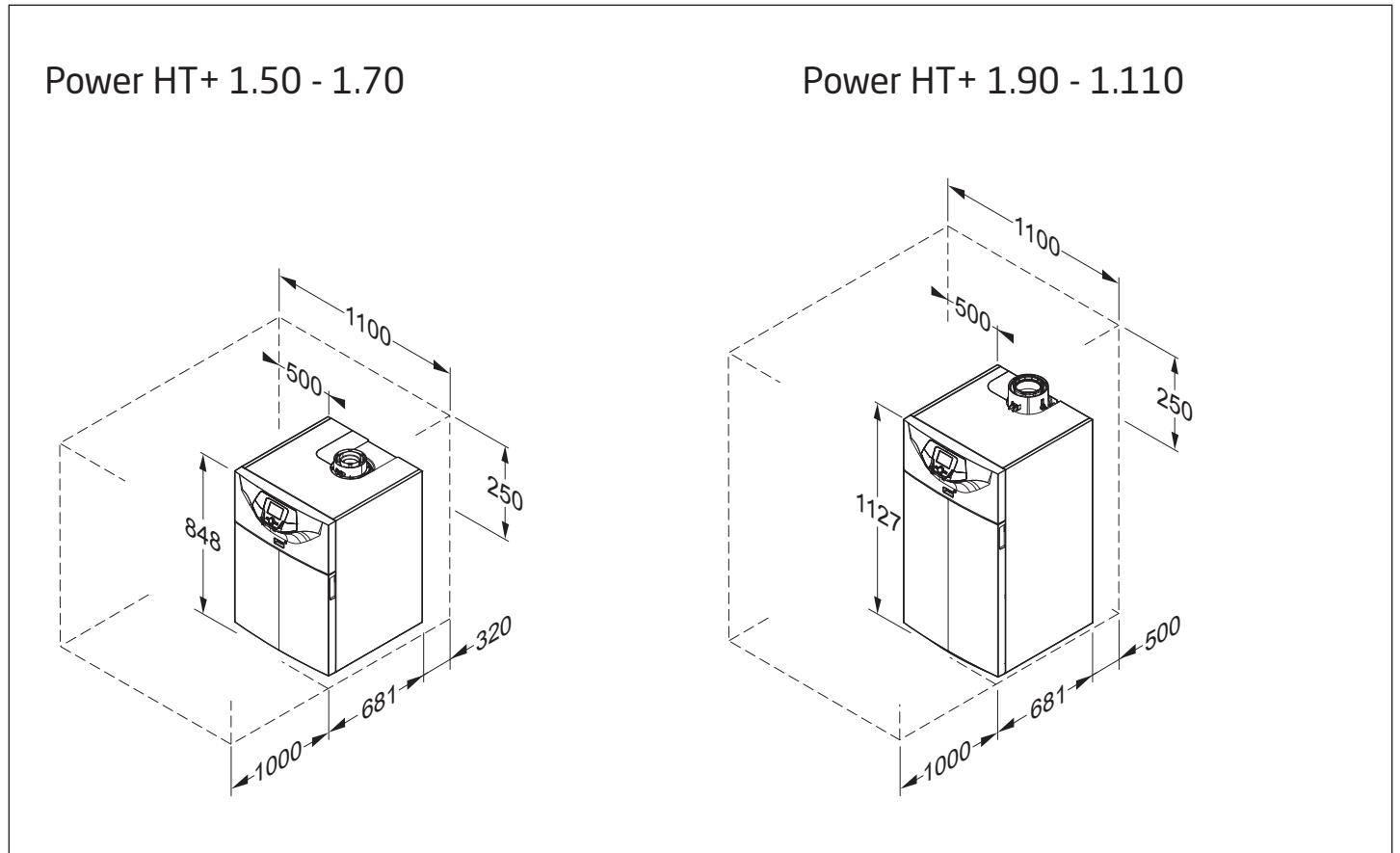
C<sub>83</sub>: The chimney or flue pipe must be suitable for such use.

Pipes maximum lengths are subjected to technical evaluation and must meet the requirements of the prevailing installation standards in the country.



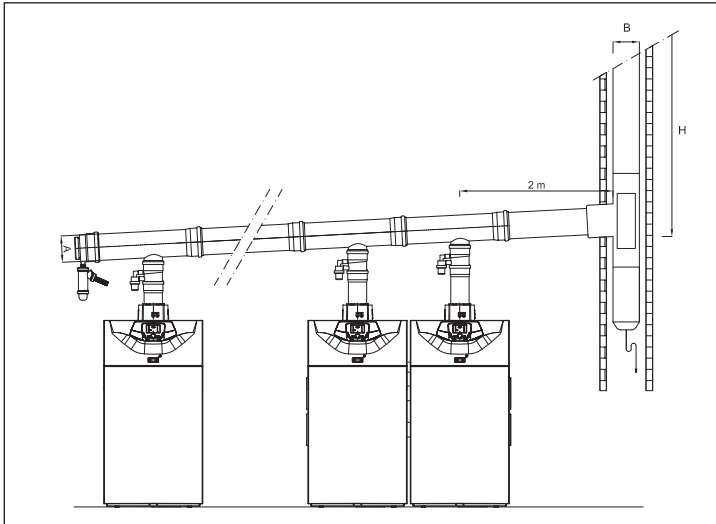
# Clearance dimensions

The figure shows the minimum clearance dimensions to allow an easy access to the boiler and servicing.



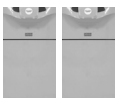
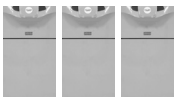
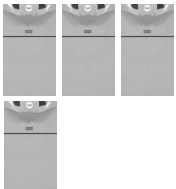
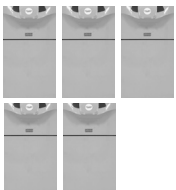
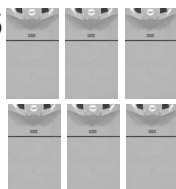
## Flue systems - cascade installation

The table shows the diameters of the flue manifold and the flue for various configurations of boilers in cascade and for various heights of flue.



### Remarks

- distance of the manifold from the first boiler to the vertical chimney 2 meters;
- shutter kit installed in each boiler in cascade;
- the flue pipes and the connections between the flue manifold of the cascade and the chimney are not supplied by BAXI, also the manifolds for cascade installation with diameter bigger than 200 mm are not supplied by BAXI,
- the calculation has been made assuming a PP "double wall" flue duct.

N° boilers in cascade		Power HT+ 1.50	Power HT+ 1.70	Power HT+ 1.90	Power HT+ 1.110
2 	Nominal heat output Total 50°/30° C (kW)	100	140	180	220
	Flue manifold Ø mm (A)	125	125	160	160
	Flue Ø mm (B) - H= 5-20 m	125	125	160	160
3 	Nominal heat output Total 50°/30° C (kW)	150	210	270	330
	Flue manifold Ø mm (A)	125	125	160	160
	Flue Ø mm (B) - H= 5-20 m	125	160	160	160
4 	Nominal heat output Total 50°/30° C (kW)	200	280	360	440
	Flue manifold Ø mm (A)	125	160	200	200
	Flue Ø mm (B) - H= 5-20 m	160	160	200	200
5 	Nominal heat output Total 50°/30° C (kW)	250	350	450	550
	Flue manifold Ø mm (A)	160	160	200	200
	Flue Ø mm (B) - H= 5-20 m	160	200	200	200
6 	Nominal heat output Total 50°/30° C (kW)	300	420	540	660
	Flue manifold Ø mm (A)	160	200	200	200
	Flue Ø mm (B) - H= 5-20 m	160	200	200	250

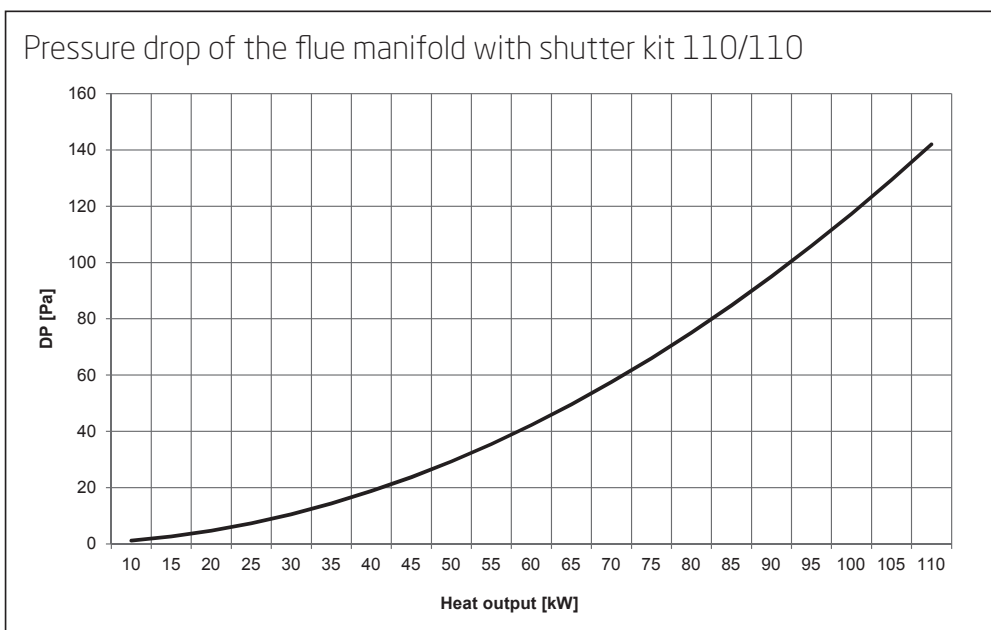
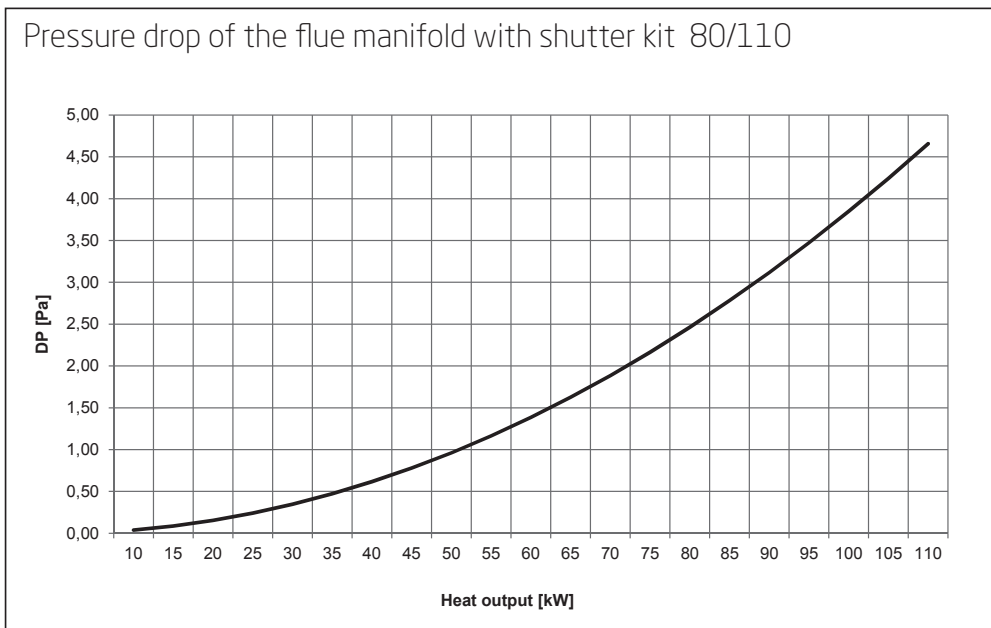
Boilers in cascade can be connected to a sole flue manifold with a shutter kit connection.

The shutter kit connection is equipped with condensing trap and it has the following diameters:

mod. 1.50-1.70 : 80/110 mm;

mod 1.90-1.110: 110/110 mm.

The graphs show the pressure drop of the flue manifold with shutter kit as a function of the heat output.



## Other accessories - cascade installation

Neutralizer filter to process the water deriving from the condensation of BAXI condensing boilers in cascade installations.



Neutralizer kit for boilers up to 350 kW  
Code KHG 71412571



Recharge for neutralizer kit for boilers up to 350 kW  
Code KHG 71413541

Maximum condensate water flow	l/h	56
Max potentiality of the boiler	kcal/h	300.000
Max potentiality of the boiler	kW	350
Maximum working pressure	bar	2
Maximum temperature of the water content	°C	Corresponding to the maximum temperatures of the condensate waters
Min/Max room temperature	°C	5-40
Quantity of the first charge of product	Kg	5
Next recharges	Kg	4,5
Dimensions (hxwx) d)	mm	260x330x225

## Hydraulic separator kit

Picture	Description	Code
	Hydraulic connection kit to the separator 8,5 m <sup>3</sup> /h G2" (it consists of: manifold insulation kit and flanges and gaskets kit)	7218613
	Hydraulic separator HS 8.5 of 8.5 m <sup>3</sup> /h - 2" threaded connectors	LSD 79000031
	Hydraulic connection kit to the separator 18 m <sup>3</sup> /h DN 65 (it consists of: manifold insulation kit and flanges and gaskets kit)	7218614
	Hydraulic separator HS 18 of 18 m <sup>3</sup> /h - Ø 65 flanged connectors	LSD 79000032
	Hydraulic connection kit to the separator 28 m <sup>3</sup> /h DN 80 (it consists of: manifold insulation kit and flanges and gaskets kit)	7218615
	Hydraulic separator HS 28 of 28 m <sup>3</sup> /h - Ø 80 flanged connectors	LSD 79000033
	Hydraulic separator HS 56 of 56 m <sup>3</sup> /h - Ø 100 flanged connectors	LSD 79000034








## Plates exchangers

Picture	Description	Code
	Brazed exchanger SPS250 - 30 plates	7215320
	Brazed exchanger SPS250 - 40 plates	7215321
	Brazed exchanger SPS250 - 50 plates	7215322
	Inspectable exchanger SPI3- 13 plates	7215323
	Inspectable exchanger SPI3- 21 plates	7215324
	Inspectable exchanger SPI3- 27 plates	7111961
	Inspectable exchanger SPI3- 33 plates	7111962
	Inspectable exchanger SPI3- 41 plates	7111964
	Inspectable exchanger SPI3- 45 plates	7215325
	Inspectable exchanger SPI3- 57 plates	7215326
	Inspectable exchanger SPI3- 67 plates	7215327

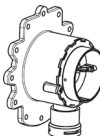
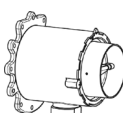
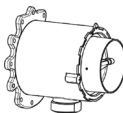
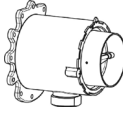
Before the installation it is compulsory to choose the right exchanger that must be dimensioned, by a qualified person, according to the installation system and the legislation.

## Other accessories

### Thermoregulation

Picture	Description	Code
	Mixing valve motor	KHG 7140785
	Mixing valve G1"	KHG 7140783
	Mixing valve G1/2"	KHG 7140786
	Mixing valve G3/4"	KHG 7140787
	Flow sensor for clip-in module THINK	KHG 7140789
	Hot water temperature sensor	KHG 7140768
	Sensor for solar controller	LNC 7100000

### LPG conversion kit

Picture	Description	Code
	LPG conversion kit for Power HT+ 1.50	7107186
	LPG conversion kit for Power HT+ 1.70	7107188
	LPG conversion kit for Power HT+ 1.90	7107189
	LPG conversion kit for Power HT+ 1.110	7107190



## Quality Environment Safety

are Baxi strategic aims and the awarded certifications ensure compliance with the specific regulations

## BAXISPA

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