

# CENTRAL HEATING SYSTEMS



Murelle HE R ErP  
Murelle Equipe ErP  
Murelle Equipe Box ErP  
Alu HE - Alu Plus HE  
2R HE ErP



## Offering more than 35 kW



Modern design standards in terms of comfort, economy of operation and management, environmental protection, ease of installation and use, have created the need for an extensive and innovative range of products. Sime responds with a range of powerful heat generators

that completely satisfy heating demands: from duplex homes to apartment blocks or commercial and industrial complexes, for installation inside technical rooms, in heating plant rooms or on the roofs of buildings. Sime has the right solution for all needs, whether for new



Murelle HE R ErP



Murelle Equipe Box ErP



Murelle Equipe ErP

# Product advantages

## HIGH-POWER WALL-HUNG MURELLE HE R ErP

- › Wide range of modulation: 1:10 for 35 kW version, 1:5 for 50, 70 and 110 kW versions
- › High-efficiency modulating circulator pump
- › Management of a series of up to 8 boilers in a cascade system
- › Possibility for MODBUS communication
- › Possibility for management via PLC or outdoor temperature regulation

## MODULAR SYSTEMS

- › The modular approach allows for a wide operating range (up to 1:25) favouring high yield in relation to power
- › Service is guaranteed even in case of breakdown of a generator: thanks to the splitting of load, inconvenience associated with the breakdown of a single generator is eliminated
- › Dimensions and weights divisible for easy installation even in thermal power plants with problematic access or positioned in higher floors
- › Power installed can be increased if necessary
- › Possibility for management via PLC or outdoor

temperature regulation

- › Suitable for outdoor installation thanks to the pre-coated, insulated, galvanized and weather-resistant metal cabinet (Murelle Equipe Box ErP version)

## HIGH-POWER ALU HE - ALU PLUS HE IN Al-Si

- › Compact dimensions and low weight
- › Low load loss water side
- › Modulating premix burner
- › Operation with sliding temperature and outdoor probe supplied as standard
- › Management of a series of up to 8 boilers in a cascade system
- › Possibility for management via PLC or outdoor temperature regulation
- › Flue exhaust system on lower side of boiler
- › Fitted with wheels to facilitate movement (Alu Plus HE vers.)

## HIGH-POWER OIL-FIRED 2R HE ErP

- › Post-condenser in AISI 316L stainless steel
- › Cast iron body with three-pass
- › Combustion chamber compliant with DIN standards

installations or the revamping of existing systems. The range of heat generators over 35 kW includes:

- High-power wall-hung condensing boilers
- Condensing gas modular systems for indoor and outdoor installation

- High-power floor-standing condensing gas boilers in Al-Si
- High-power floor-standing condensing oil-fired boilers.



Alu HE

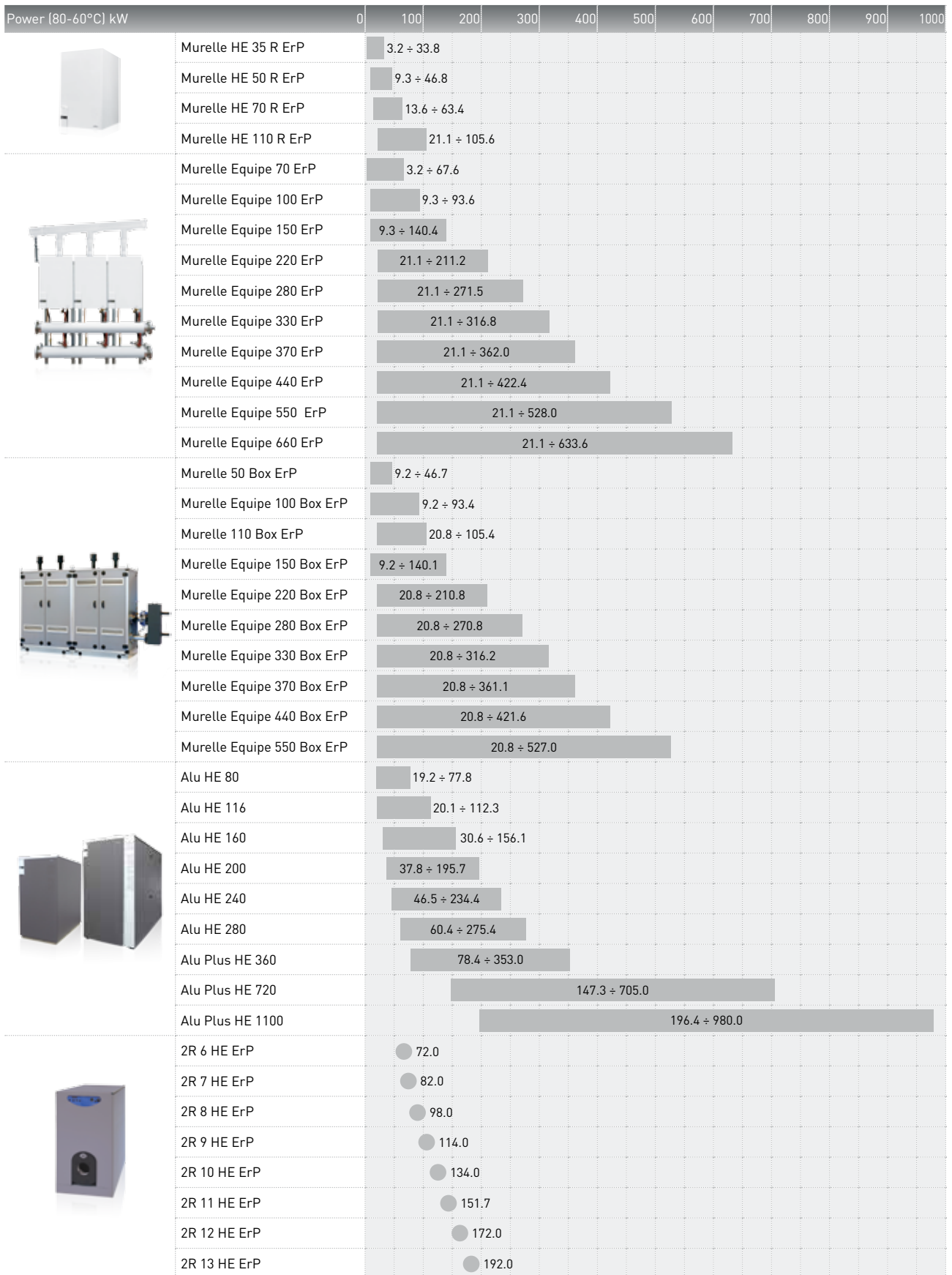


Alu Plus HE



2R HE ErP

# Range of power



## Murelle HE R ErP - Modular systems

### A green heart

All high-power wall-hung boilers and modular systems are equipped with 35, 50, 70 or 110 kW condenser coil exchangers, characterised by high yield. The combustion of methane generates water vapour which in traditional boilers is conveyed to the outside through the release of flue gasses from the chimney. The technology used allows for the recovery of this heat. The main exchanger is made of stainless steel suitable for resisting the corrosive action of the condensate.

Its particular cylindrical shape (single for the 35, 50 and 70 kW models and overlapping double for 110 kW models) as well as the efficient collection system of the liquid condensate, ensure the best possible heat exchange.

The radial pre-mix burner is made of steel.

Characterised by a cylindrical shape and positioned at the centre of the combustion chamber, it produces a particular "microflame" at low temperature which reduces the production of pollutants (CO and NOx) significantly.

The air and the gas necessary for combustion enter the burner and are mixed in an ideal balanced ratio. The recovery of heat contained in the combustion flue gasses takes place through a particular process: the water vapour content of the flue gasses condenses when in contact with the surfaces of the heat exchanger made cooler by the return water from the heating circuit.

During the condensation, the transfer of energy takes place that would otherwise be lost with the release of the flue gasses.



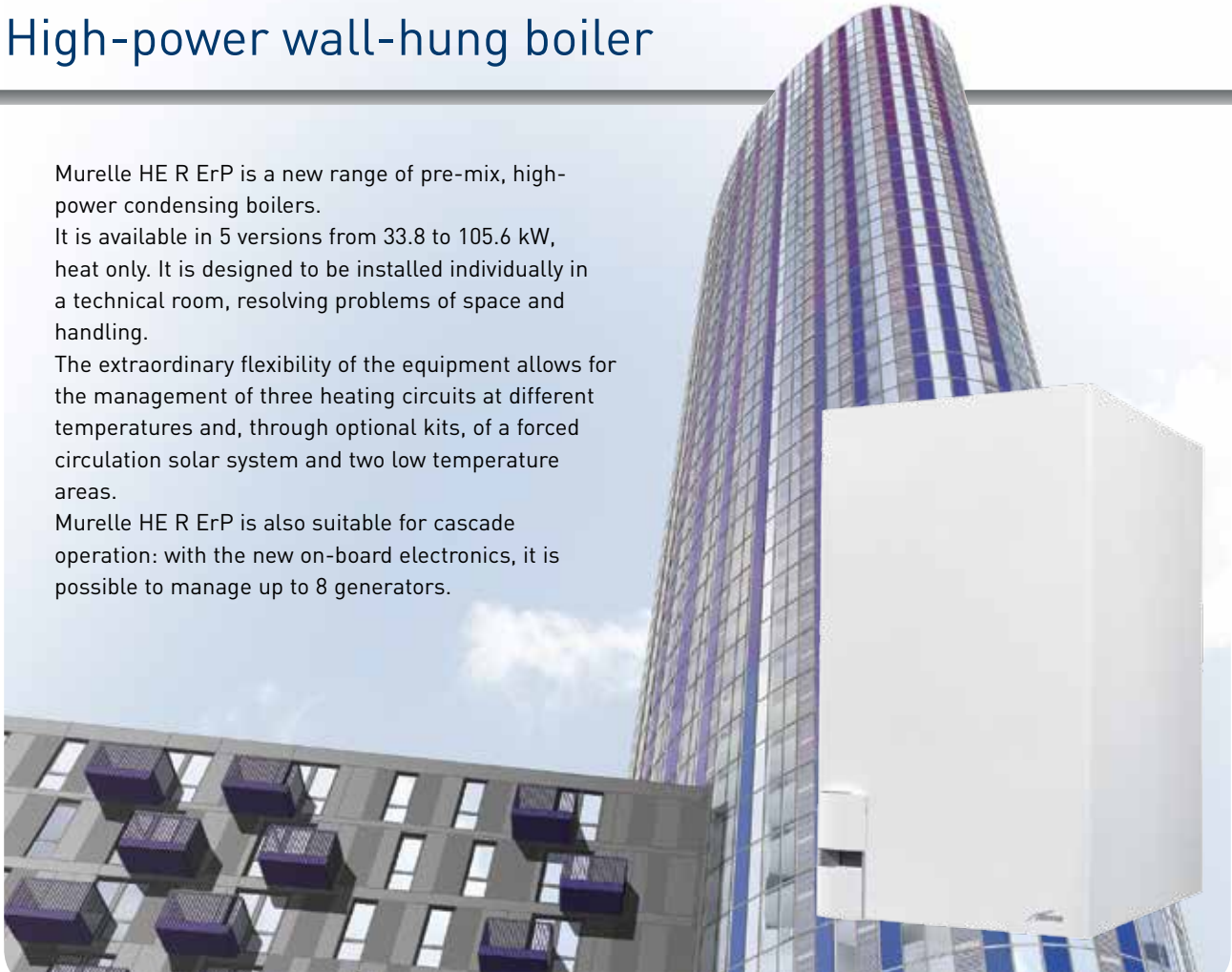
# Murelle HE R ErP

## High-power wall-hung boiler

Murelle HE R ErP is a new range of pre-mix, high-power condensing boilers. It is available in 5 versions from 33.8 to 105.6 kW, heat only. It is designed to be installed individually in a technical room, resolving problems of space and handling.

The extraordinary flexibility of the equipment allows for the management of three heating circuits at different temperatures and, through optional kits, of a forced circulation solar system and two low temperature areas.

Murelle HE R ErP is also suitable for cascade operation: with the new on-board electronics, it is possible to manage up to 8 generators.



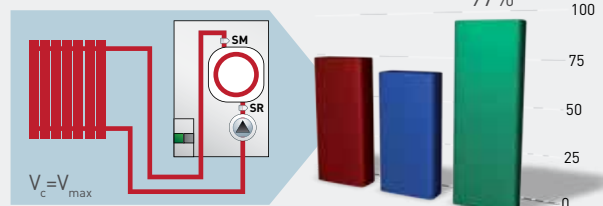
## Modulating circulator pump

The range includes a high-efficiency modulating circulator pump, which thanks to a two-probe management system (delivery and return), the variable pump speeds allow the adjustment of the flow rate to maintain the temperature of the return water at the desired level.

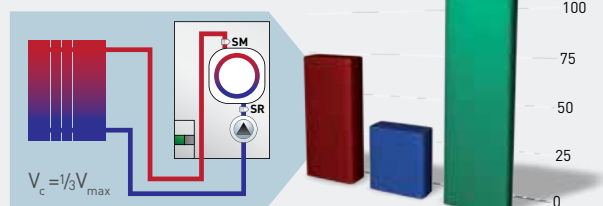
The boiler regulates and maintains the delivery temperature at a preset value (e.g. 70°C), while through the modulating circulator pump it reduces the system water flow rate until obtaining the desired  $\Delta T$  (e.g.  $\Delta T = 30^\circ\text{C}$ ) between the delivery and return, so as to optimise the condensing process.

Thanks to the variable speed circulator pump and the control system, the boiler always guarantees maximum fuel efficiency.

HIGH SPEED OF THE PUMP



LOW SPEED OF THE PUMP



■ Flow Temperature (°C)  
 ■ Return Temperature (°C)  
 ■ Output (%)

## Murelle Equipe ErP

# Condensing modular systems: a complete system

The Murelle Equipe ErP condensing modular systems are the result of constant technological research by Sime and born from the combination of the principle of condensation and fragmentation of power. Modern design often makes use of modular systems that use standardised components easily adapted to a wide range of potential needs. Murelle Equipe ErP modular systems are made by assembling individual 35, 50, 70 and 110 kW generators, thus developing different power levels. With Murelle Equipe ErP, the designer finds a new and complete solution for meeting heating needs. The system exploits the possibility of use in cascade and high flexibility, which ensures operation in all conditions, with the great advantages of condensation and a sliding temperature. It has a small size, light weight, is quiet and quick to install. In this regard, Sime provides separate safety kits with every device, that can be installed on the right or left of the modular system according to the

type of system. The Murelle Equipe ErP modular systems can be installed inside a thermal power plant or outside with complete versions of cabinets made of pre-painted galvanised, insulated and weather-resistant sheet metal. Murelle Equipe ErP condensing modular systems are designed to facilitate quick and easy installation; all the components needed are supplied to assist operators with complete installation of the modular unit. Sime provides a comprehensive system of condensing heat generators, pre-sized collectors for hydraulic and gas connection, condensate collectors, fittings, management cards and exhaust systems for combustion products. For indoor installation, the system provides frames for wall mounting while for outdoor installation, cabinets complete with mounting brackets for generators and collectors are supplied. An appropriate range of optional hydraulic compensators and plate exchangers is offered.



Murelle Equipe 220 Box ErP

# Murelle HE R ErP

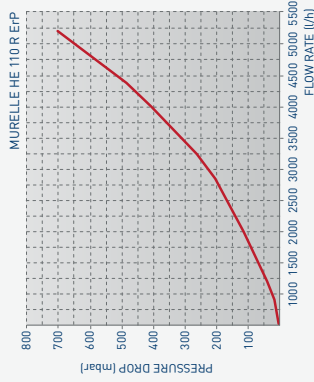
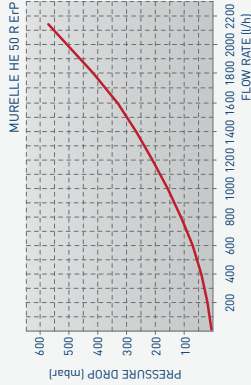
## Complete system type

SYSTEM TYPE WITH PARALLEL PRIORITY FUNCTION IN HEATING AND DHW

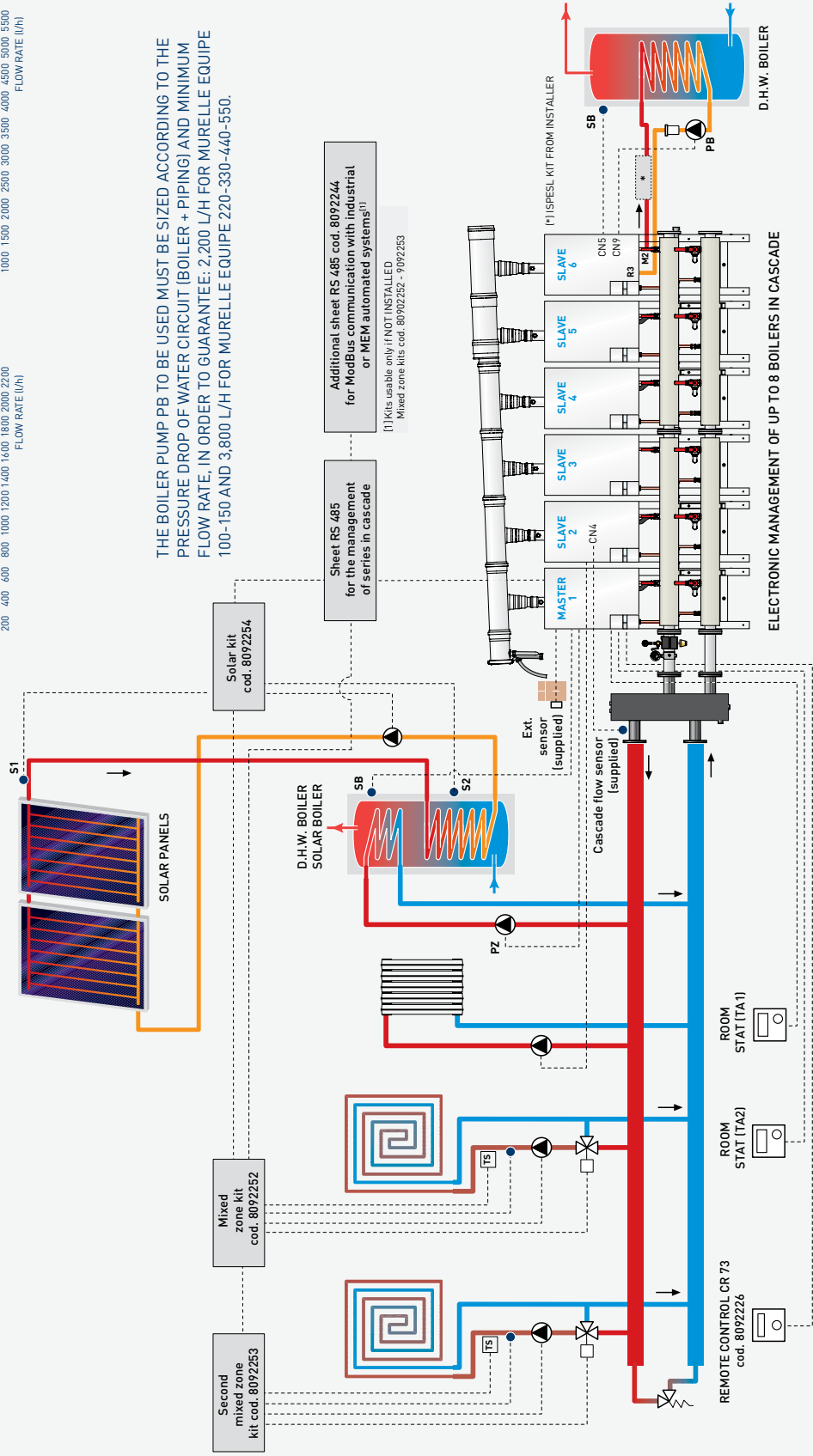
IF THE MANAGEMENT OF BOILER PREPARATION IS DESIRED AFTER THE HYDRAULIC COMPENSATOR WITH PARALLEL PRIORITY IN TERMS OF HEATING SERVICE, IT CAN BE DONE BY TREATING THE BOILER LIKE A HIGH TEMPERATURE AREA, SETTING MINIMUM AND MAXIMUM TEMPERATURE LIMITS THROUGH THE INSTALLER PARAMETERS OF THE CHOSEN CIRCUIT, IN ORDER TO INHIBIT THE INFLUENCE OF CLIMATIC ADJUSTMENTS.

NOTE: WHEN USING THIS PROCEDURE, A HEATING CIRCUIT IS NO LONGER AVAILABLE AS IT IS USED BY THE BOILER.

**PRESSURE/FLOW LOSS CURVE BETWEEN THE R3 AND M2 ATTACHMENTS**



THE BOILER PUMP PB TO BE USED MUST BE SIZED ACCORDING TO THE PRESSURE DROP OF WATER CIRCUIT (BOILER + PIPING) AND MINIMUM FLOW RATE; IN ORDER TO GUARANTEE: 2,200 L/H FOR MURELLE EQUIPE 100-150 AND 3,800 L/H FOR MURELLE EQUIPE 220-330-440-550.



Second zone mixed zone kit cod. 8092253

Mixed zone kit cod. 8092252

Solar kit cod. 8092254

Sheet RS 485 for the management of series in cascade

Additional sheet RS 485 cod. 8092244 for ModBus communication with industrial or MIEV automated systems<sup>(1)</sup>

<sup>(1)</sup> Kits usable only if NOT INSTALLED. Mixed zone kits cod. 8092252 - 9092253

**ELECTRONIC MANAGEMENT OF UP TO 8 BOILERS IN CASCADE**





## Technical and safety features

	Murelle HE R ErP	Murelle Equipe ErP	Murelle Equipe Box ErP
Electronic board with microprocessor	●	●	●
Continuous electronic modulation of flame	●	●	●
Automatic ignition and ionisation of flame	●	●	●
Chimney sweep function that facilitates the analysis of combustion	●	●	●
Antifreeze system created with heating probe	●	●	●
Collectors of water flow and return and gas supply system	X	●	●
Unidirectional valves	X	●	●
Exhaust condensate including drain pipe	●	X	X
Collector of exhaust condensate including drain pipe	X	●	●
Water/flue exchanger made of stainless steel	●	●	●
Flue collector made of polypropylene for indoor installation	X	●	○
Single flue release terminal for external installation	X	X	○
Premix burner with low NOx	●	●	●
Pump on the primary circuit with air separator	●	●	●
High efficiency pump	●	●	●
Post circulation of the pump	●	●	●
Post ventilation of fan	●	●	●
Gas valve with modulator and double valve that interrupts gas release in the absence of flame	●	●	●
External temperature sensor	●	●	●
External casing made of galvanised pre-painted weather-resistant sheet metal	X	X	●
Self-diagnostics via LCD display	●	●	●
Safety in case of lack of water	●	●	●
Safety thermostat	●	●	●
Flue thermostat for the protection of the exhaust pipe in polypropylene	●	●	●
Safety valve 3.5 BAR (5 BAR for versions with 100 kW motor) per unit of heat	●	●	●
INAIL safety kit	○	○	○
Hydraulic compensator kit	○	○	○
Basic electrical panel <sup>[1]</sup>	X	○	○
Complete electrical panel <sup>[2]</sup>	X	○	○

[1] IP65 outdoor resin electrical panel. Management of up to three boilers in cascade, a direct area and a boiler. Magneto-thermal protection, two relays for pump decoupling system and boiler pump, jack plug for auxiliary power.

[2] IP65 outdoor resin electrical panel. Management of up to five boilers in cascade, a direct area, two expansion boards for MIX or solar areas (one already installed) and a boiler, jack plug for auxiliary power. Magneto-thermal protection, two relays for pump decoupling system and boiler pump.

● Series    ○ Optional    X Not planned

# Alu HE - Alu Plus HE

## High-power aluminium

Sime enriches its offer of centralised heating systems with floor-standing condensing gas boilers Alu HE and Alu Plus HE covering a range of power from 80 to 280 kW (Alu HE vers.) and 360-720-1100 kW (Alu Plus HE vers.).

The exchanger is made of pre-assembled elements in an aluminium and silicon alloy, a highly reliable material in terms of its thermal conductivity. The bodies of the Alu HE and Alu Plus HE versions are equipped with a completely water cooled combustion chamber and are combined with only one burner and fan.

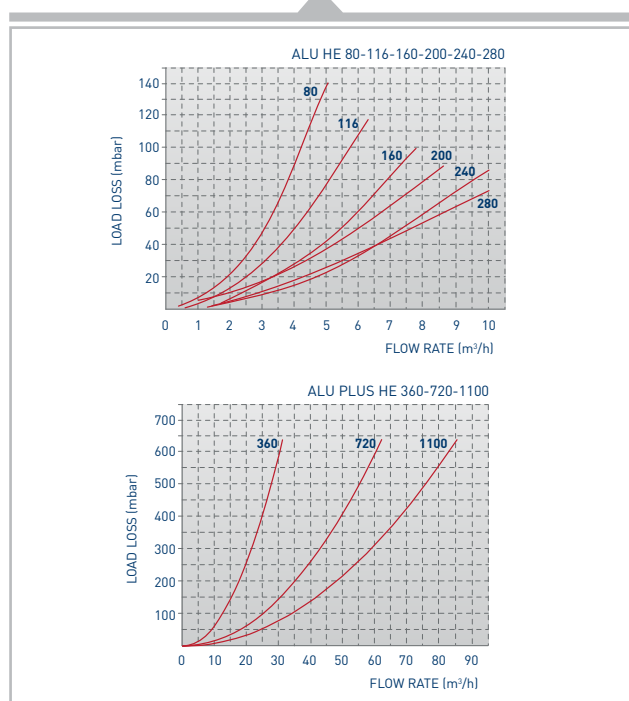
The boilers, with a medium water content, are particularly compact and lightweight. The low thermal inertia enables a prompt response to the system's requests for power variations, while the wide water passages protect against dirt and ensure low load losses.

Moreover, premix combustion ensures these boilers fall well within the strict limits imposed by European and international regulations in regards to polluting emissions.

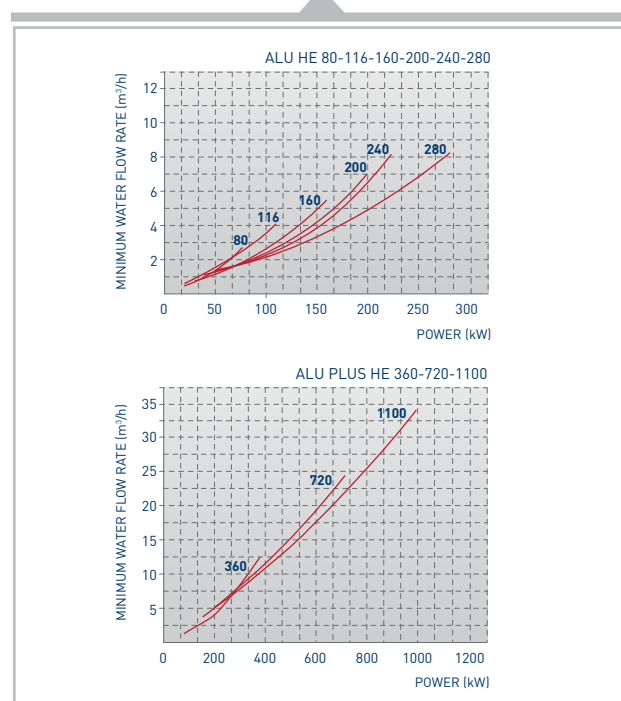


Exchanger Alu Plus HE vers.

### LOW LOAD LOSSES



### WIDE WATER FLOW PASSAGE



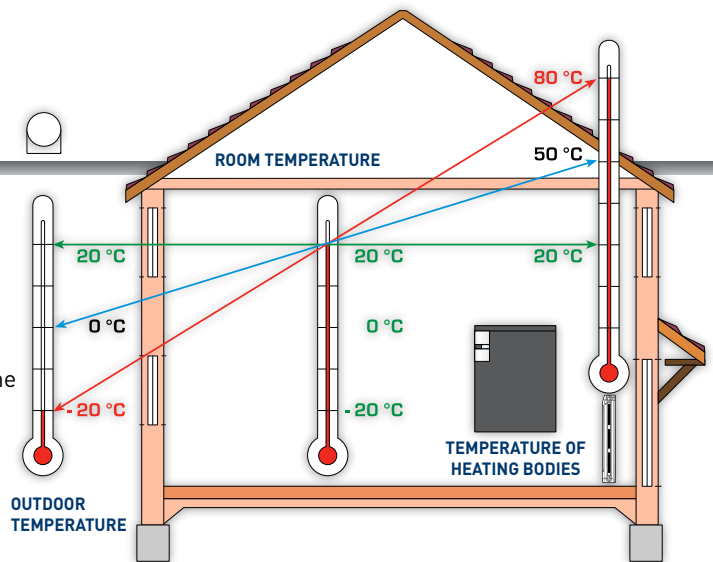
# Alu HE - Alu Plus HE

## An expandable system

All boilers in the range have weather compensation built-in allowing adjustment according to climatic conditions thanks to the outdoor temperature probe supplied as standard, thereby reducing the operating costs of the heating system. Using an optional kit that can be integrated into the boiler, the generators can satisfy all system needs:

- up to two mixed systems plus one direct system with one mixed zone kit cod. 8092275 and a second mixed zone kit cod. 8092276
- systems with solar thermal technology with management kit cod. 8092277.

All boilers can also be managed via PLC or outdoor temperature regulation.



## The boiler in detail

**CONTROL PANEL**  
supplied standard with outdoor probe, allows regulation of delivery temperature based on outdoor temperature (sliding temperature function).

**FAN**  
with variable speed for modulation and air/gas mixing

**BURNER WITH MICROFLAME**  
in stainless steel and with total premixing, allows high modulation ratios, stable combustion and low polluting emissions (NOx class = 6)

**ALUMINIUM BODY**  
composed of preassembled elements in an aluminium and silicon alloy, with medium water content and high exchange surface, to maximise energy efficiency and heat output

**RETURN MANIFOLD**

**FLUE CHAMBER/CONDENSATE MANIFOLD**

# Alu HE - Alu Plus HE

## Product plus-points



### INNOVATIVE ELEMENTS

Advanced casting technology and a modern body design guarantee reliability and excellent properties of thermal conductivity



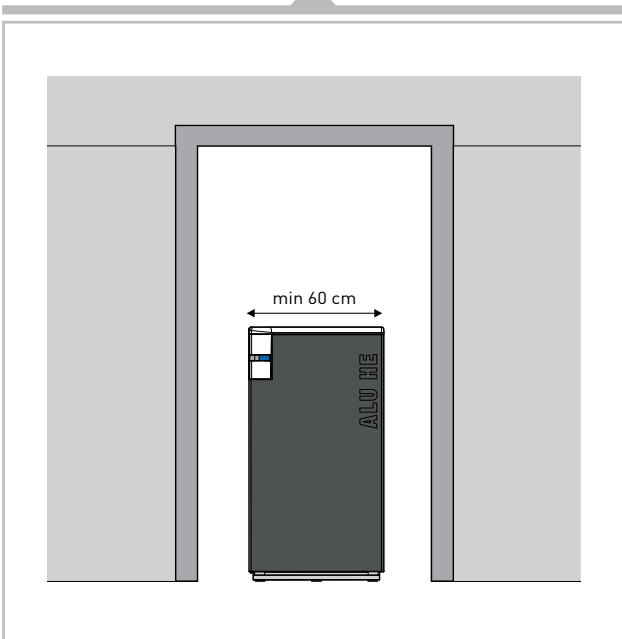
- A** INSTALLER INTERFACE
- B** BACKLIT DISPLAY
- C** USER INTERFACE

### MODERN AND FUNCTIONAL INTERFACE

The Alu range is equipped with reliable, modern and functional electronics and a backlit display.

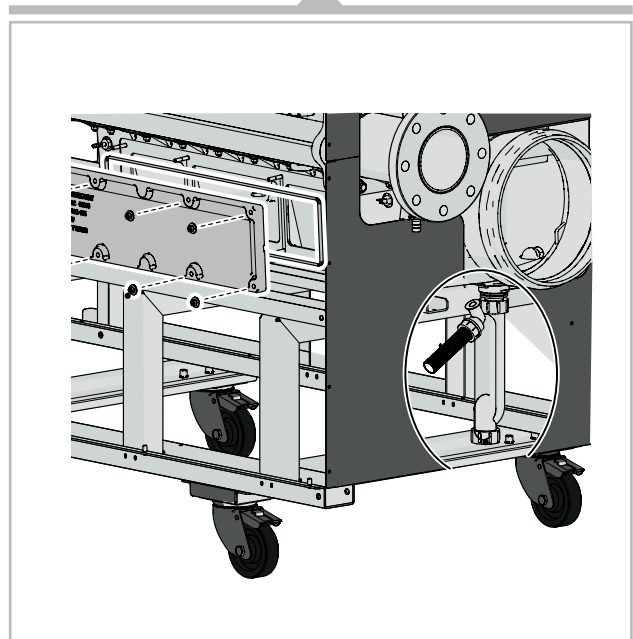
### DIMENSIONS

All Alu HE models can easily fit through the doors of heating plant rooms with openings starting from 60 cm.



### EASY HANDLING

Alu Plus HE is supplied with wheels as standard.



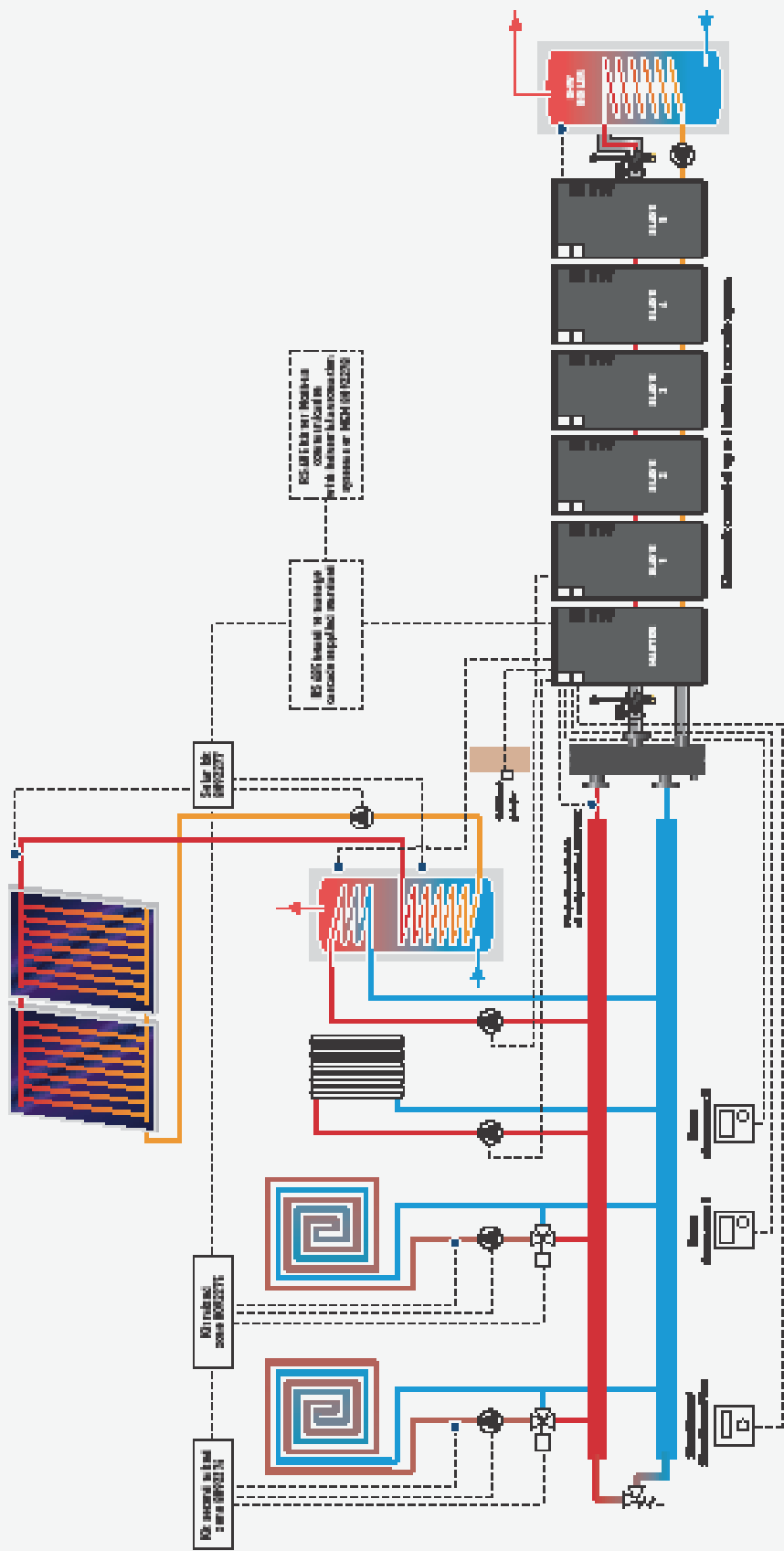
# Alu HE - Alu Plus HE

## Complete system type

### EXAMPLE OF SYSTEM WITH PARALLEL PRIORITY IN HEATING AND D.H.W.

IF IT IS NECESSARY TO MANAGE THE PREPARATION OF THE BOILER AFTER THE HYDRAULIC COMPENSATOR, WITH PRIORITY PARALLEL TO THE HEATING SERVICE, IT IS POSSIBLE TO DO SO BY TREATING THE BOILER AS A HIGH-TEMPERATURE ZONE, SETTING THE MINIMUM AND MAXIMUM TEMPERATURE LIMIT AT THE SAME VALUE THROUGH THE INSTALLER PARAMETERS RELATIVE TO THE SELECTED CIRCUIT, SO AS TO INHIBIT THE INFLUENCE OF CLIMATE REGULATION.

NOTE: WHEN THIS PROCEDURE IS APPLIED, ONE HEATING CIRCUIT WILL NO LONGER BE AVAILABLE INsofar AS OCCUPIED BY THE BOILER.





## 2R HE ErP High quality heat

Cast iron boilers are set apart by their high-level safety, long life, energy savings and reliable performance.

2R HE ErP is a range of cast iron condensing boilers with three-pass, for heating only, with power from 72.0 to 192.0 kW, with the possibility for combining with oil burners.

Cast iron is an alloy whose properties remain unaltered over time, and which is synonymous with reliability. The elements are configured to ensure optimal combustion, thus reducing the emission of harmful gases into the environment.

The excellent insulation of the combustion chamber reduces losses caused by thermal radiation, while at the same time reducing noise levels.

Fewer and easier cleaning and maintenance

operations thanks to the reversible hinge on the combustion chamber door.

The range is supplied disassembled (cast iron body, shell, control panel and post-condenser kit) to further facilitate transport and installation.

Models feature a combustion system that ensures high efficiency thanks to the recovery of the heat content of the combustion products.

Condensation is obtained by means of a stainless steel post-condenser situated behind the boiler, which recovers most of the dispersions, thus maximising use of the total energy produced by the fuel.

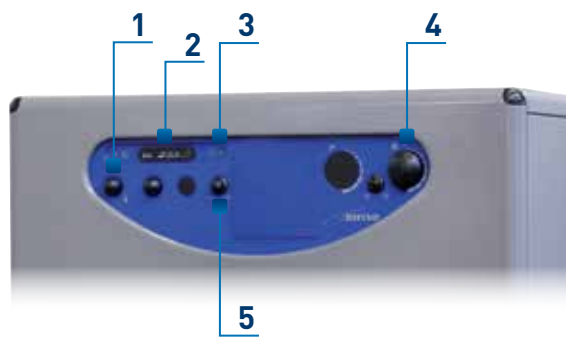


Post-condenser in AISI 316L stainless steel

## Easy-to-use control panel

Using a single button, the boiler automatically controls all the different stages of operation: simply turn on the switch and the boiler will automatically start to function according to the request for heating.

The temperature can be regulated from the heating potentiometer knob.

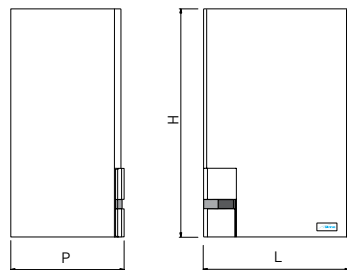


- |                            |                            |
|----------------------------|----------------------------|
| <b>Functions and tools</b> | <b>3</b> Voltage LED       |
| <b>1</b> Safety thermostat | <b>4</b> Boiler thermostat |
| <b>2</b> Thermometer       | <b>5</b> Main switch       |

# Murelle HE R ErP

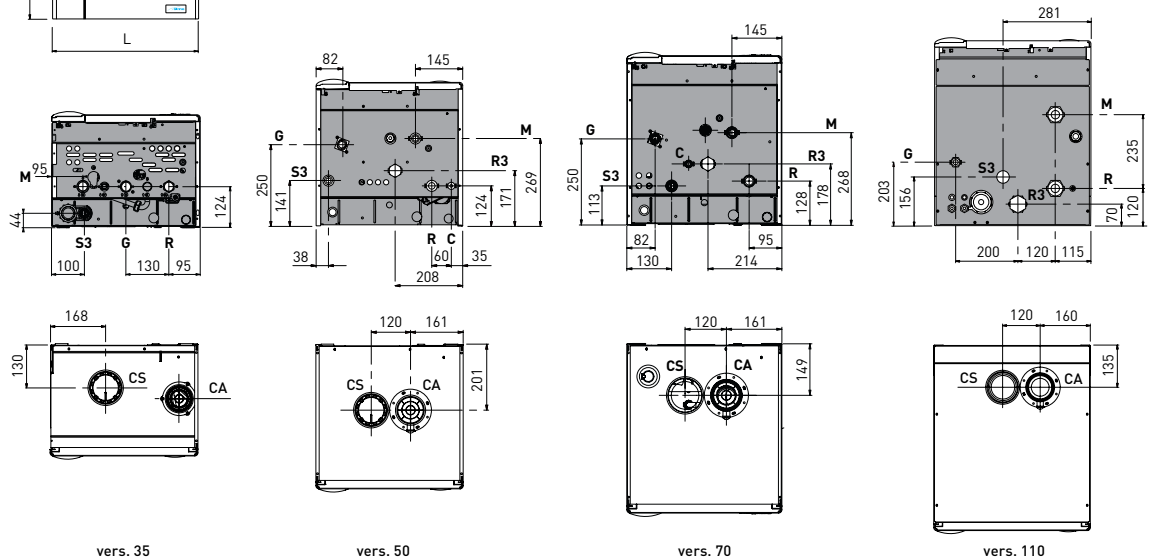
MODEL	MURELLE HE				
	35 R ErP	50 R ErP	70 R ErP	110 R ErP	
Nominal heat output (80-60°C)	kW	33.8	46.8	63.4	105.6
Reduced heat output (80-60°C)	kW	3.2	9.3	13.6	21.1
Nominal heat output (50-30°C)	kW	37.2	51.2	69.4	114.6
Reduced heat output (50-30°C)	kW	3.7	10.5	15.3	23.6
Nominal heat input	kW	34.8	48.0	65.0	108.0
Reduced heat input	kW	3.48	9.6	14.0	21.6
Minimum useful yield (80-60°C)	%	92.0	96.9	97.0	97.7
Maximum useful yield (80-60°C)	%	97.2	97.5	97.5	97.8
Minimum useful yield (50-30°C)	%	106.3	109.0	109.1	109.1
Maximum useful yield (50-30°C)	%	106.8	106.7	106.7	106.1
Heating energy efficiency class		<b>A</b>	<b>A</b>	<b>A</b>	-
Sound power of the heating system	dB(A)	56	53	69	-
Losses after shutdown	W	108	76	86	126
Electrical power consumed (fixed pump)	W	109	141	187	258
Electric protection degree	IP	X4D	X4D	X4D	X4D
Water content	l	2.65	2.30	3.5	8.20
Maximum operating pressure	bar	3.5	3.5	3.5	5.0
Max pressure of flue collector release	Pa	180	160	150	428
Max/min flue gas temperature 80-60°C	°C	80.0/69.0	85.6/71.3	87/ 74	86.2/74.6
Max/min flue gas temperature 50-30°C	°C	58.5/44.0	52.6/43.5	55/48	61.6/49.2
NOx emission class		6	6	6	6
Weight	kg	32	38	39	87

## Overall dimensions



Dim.	35	50	70	110
L mm	450	450	450	500
P mm	350	440	490	600
H mm	700	700	700	865

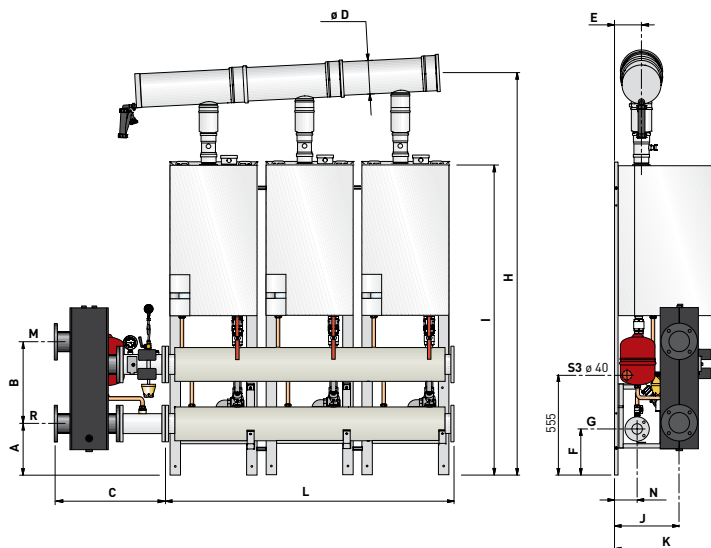
Hydraulic connections	35	50	70	110
<b>R</b> C.H. return	3/4"	1"	1"	1 1/2"
<b>M</b> C.H. flow	3/4"	1"	1"	1 1/2"
<b>G</b> Gas supply	3/4"	3/4"	3/4"	3/4"
<b>R3</b> Boiler return	-	1"	1"	1 1/2"
<b>C</b> System load	-	1/2"	1/2"	-
<b>S3</b> Condensate outlet	ø 25	ø 25	ø 25	ø 25
<b>CA</b> Inlet duct	ø 80	ø 80	ø 80	ø 80
<b>CS</b> Outlet duct	ø 60	ø 80	ø 80	ø 80



# Murelle Equipe ErP

		MURELLE EQUIPE									
MODEL		70 ErP	100 ErP	150 ErP	220 ErP	280 ErP	330 ErP	370 ErP	440 ErP	550 ErP	660 ErP
Nominal heat output (80-60°C)	kW	67.6 (2x33.8)	93.6 (2x46.8)	140.4 (3x46.8)	211.2 (2x105.6)	271.5 (3x90.5)	316.8 (3x105.6)	362.0 (4x90.5)	422.4 (4x105.6)	528.0 (5x105.6)	633.6 (6x105.6)
Nominal heat output (50-30°C)	kW	74.4 (2x37.2)	102.4 (2x51.2)	153.6 (3x51.2)	229.2 (2x114.6)	294.3 (3x98.1)	343.8 (3x114.6)	392.4 (4x98.1)	458.4 (4x114.6)	573.0 (5x114.6)	687.6 (6x114.6)
Reduced heat output G20 (80-60°C)	kW	3.2	9.3	9.3	21.1	21.1	21.1	21.1	21.1	21.1	21.1
Reduced heat output G20 (50-30°C)	kW	3.7	10.5	10.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
Nominal heat input	kW	69.6 (2x34.8)	96.0 (2x48.0)	144.0 (3x48.0)	216.0 (2x108.0)	277.5 (3x92.5)	324.0 (3x108.0)	370 (4x92.5)	432.0 (4x108.0)	540.0 (5x108.0)	648.0 (6x108.0)
Reduced heat input G20	kW	3.48	9.6	9.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
Minimum useful yield (80-60°C)	%	92.0	96.9	96.9	97.7	97.7	97.7	97.7	97.7	97.7	97.7
Maximum useful yield (80-60°C)	%	97.2	97.5	97.5	97.8	97.8	97.8	97.8	97.8	97.8	97.8
Minimum useful yield (50-30°C)	%	106.3	109.0	109.0	109.1	109.1	109.1	109.1	109.1	109.1	109.1
Maximum useful yield (50-30°C)	%	106.8	106.7	106.7	106.1	106.1	106.1	106.1	106.1	106.1	106.1
Useful thermic output at 30% of load	%	108.6	108.6	108.5	108.1	108.1	108.1	108.1	108.1	108.1	108.1
Electric power consumed (fixed pump)	W	216 (2x108)	282 (2x141)	423 (3x141)	516 (2x258)	735 (3x245)	774 (3x258)	980 (4x245)	1032 (4x258)	1290 (5x258)	1548 (6x258)
Heating energy efficiency class		<b>A</b>	-	-	-	-	-	-	-	-	-
Sound power of the heating system	dB(A)	58	-	-	-	-	-	-	-	-	-
NOx class		6	6	6	6	6	6	6	6	6	6
<b>Generators</b>	<b>n°.</b>	<b>2x35</b>	<b>2x50</b>	<b>3x50</b>	<b>2x110</b>	<b>3x92.5</b>	<b>3x110</b>	<b>4x92.5</b>	<b>4x110</b>	<b>5x110</b>	<b>6x110</b>
Water content modules		10.8	25.5	43.7	36.3	55.9	55.9	72.6	72.6	92.2	117.6
Max/min flue gas temper. 80-60°C	°C	80.0/69.0	85.6/71.3	85.6/71.3	86.2/74.6	72.1/58.4	86.2/74.6	72.1/58.4	86.2/74.6	86.2/74.6	86.2/74.6
Max/min flue gas temper. 50-30°C	°C	58.5/44.0	52.6/43.5	52.6/43.5	61.6/49.2	51.3/35.1	61.6/49.2	51.3/35.1	61.6/49.2	61.6/49.2	61.6/49.2
Max pressure of flue collector release	Pa	180	160	160	375	375	375	375	375	375	375
Maximum operating pressure	bar	3.5	3.5	3.5	5	5	5	5	5	5	5
Weight	kg	225	424	330	495	634	634	775	775	920	1140

## Overall dimensions



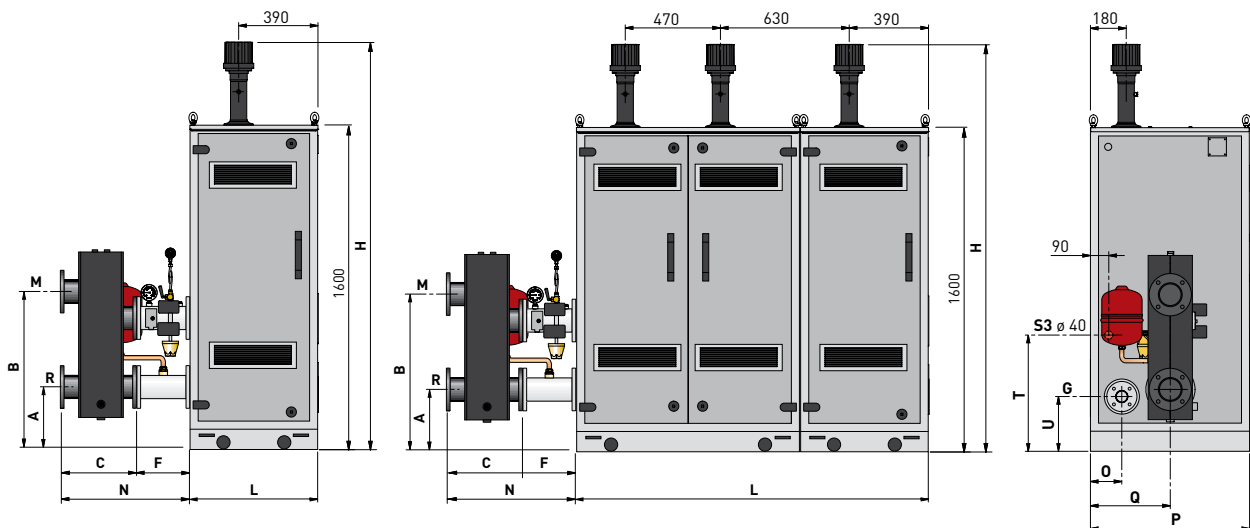
MODEL	A	B	C	øD	E	F	H	J	K	L	N	M-R	G
<b>70 ErP</b>	mm 305	270	535	160	156	260	1823	265	390	1121	230	1 1/2"	1 1/4"
<b>100 ErP</b>	mm 358	370	675	160	225	260	1,984	380.5	487.5	1,104	134.5	2"	FL. PN6-DN50
<b>150 ErP</b>	mm 358	370	675	160	225	260	2,013	380.5	487.5	1,656	134.5	2"	FL. PN6-DN50
<b>220 ErP</b>	mm 296	470	640	200	155	260	2,292	374	620	1,104	131	FL. PN6-DN100	FL. PN6-DN50
<b>280 ErP</b>	mm 296	470	640	200	155	260	2,326	374	620	1,656	131	FL. PN6-DN100	FL. PN6-DN50
<b>330 ErP</b>	mm 296	470	640	200	155	260	2,326	374	620	1,656	131	FL. PN6-DN100	FL. PN6-DN50
<b>370 ErP</b>	mm 551	635	1,090	200	155	260	2,360	374	620	2,208	131	FL. PN6-DN100	FL. PN6-DN50
<b>440 ErP</b>	mm 551	635	1,090	200	155	260	2,360	374	620	2,208	131	FL. PN6-DN100	FL. PN6-DN50
<b>550 ErP</b>	mm 551	635	1,090	200	155	260	2,394	374	620	2,760	131	FL. PN6-DN100	FL. PN6-DN50
<b>660 ErP</b>	mm 550	635	1,090	250	154	260	2,428	374	620	3,314	131	FL. PN6-DN100	FL. PN6-DN50



# Murelle Equipe Box ErP

		MURELLE EQUIPE BOX									
MODEL		50 ErP	100 ErP	150 ErP	110 ErP	220 ErP	280 ErP	330 ErP	370 ErP	440 ErP	550 ErP
Nominal heat output (80-60°C)	kW	46.7	93.4	140.1	105.4	210.8	270.8	316.2	361.1	421.6	527.0
Nominal heat output (50-30°C)	kW	51.0	102.0	153.0	112.6	225.2	289.2	337.8	385.6	454.0	563.0
Reduced heat output G20 (80-60°C)	kW	9.2	9.2	9.2	20.8	20.8	20.8	20.8	20.8	20.8	20.8
Reduced heat output G20 (50-30°C)	kW	10.5	10.5	10.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
Nominal heat input	kW	48.0	96.0	144.0	108.0	216.0	277.5	326.0	330.0	432.0	540.0
Reduced heat input G20	kW	9.6	9.6	9.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
Minimum useful yield (80-60°C)	%	96.1	96.1	96.1	96.4	96.4	96.4	96.4	96.4	96.4	96.4
Maximum useful yield (80-60°C)	%	97.3	97.3	97.3	97.6	97.6	97.6	97.6	97.6	97.6	97.6
Minimum useful yield (50-30°C)	%	109.0	109.0	109.0	107.4	107.4	107.4	107.4	107.4	107.4	107.4
Maximum useful yield (50-30°C)	%	106.2	106.2	106.2	104.2	104.2	104.2	104.2	104.2	104.2	104.2
Useful thermic output at 30% of load	%	108.6	108.5	108.5	105.4	105.4	108.1	105.4	108.1	105.4	105.4
Power consumption (fixed pump)	W	141	281	423	258	516 (2x258)	735 (3x245)	774 (3x258)	980 (4x245)	1032 (4x258)	1290 (5x258)
Heating energy efficiency class		<b>A</b>	-	-	-	-	-	-	-	-	-
Sound power of the heating system	dB(A)	52	-	-	-	-	-	-	-	-	-
NOx class		6	6	6	6	6	6	6	6	6	6
Type		B23-53 / B23P-53P									
<b>Generators</b>	n°	<b>1x50</b>	<b>2x50</b>	<b>3x50</b>	<b>1x110</b>	<b>2x110</b>	<b>3x92.5</b>	<b>3x110</b>	<b>4x92.5</b>	<b>4x110</b>	<b>5x110</b>
Max. press. of flue collector release	Pa	160	160	160	375	375	375	375	375	375	375
Max. press. of independent flue outlet	Pa	160	160	160	428	428	428	428	428	428	428
Maximum operating pressure	bar	3.5	3.5	3.5	5	5	5	5	5	5	5
Weight	kg	148	233	381	235	380	615	615	615	760	995

## Overall dimensions

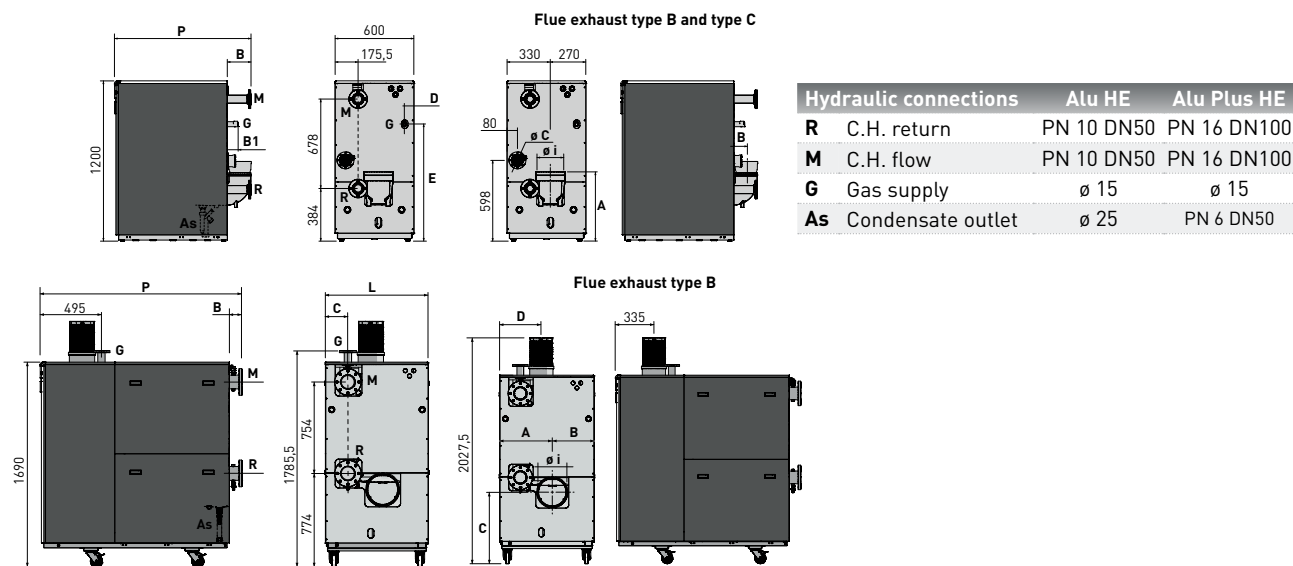


MODEL	A	B	C	F	H	L	N	O	P	Q	T	U	M-R	G	
50 Box ErP	mm	235	350	-	-	2,096	730	-	91	640	315	637	768	2"	FL. PN6-DN50
100 Box ErP	mm	440	810	415	260	1,945	1,100	675	155	640	403	637	342	2"	FL. PN6-DN50
150 Box ErP	mm	440	810	415	260	1,945	1,730	675	155	640	403	637	342	2"	FL. PN6-DN50
110 Box ErP	mm	226	341	-	-	2,366	780	-	91	790	397	567	770	2"	FL. PN6-DN50
220 Box ErP	mm	307	777	380	260	2,010	1,100	640	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50
280 Box ErP	mm	307	777	380	260	2,010	1,730	640	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50
330 Box ErP	mm	307	777	380	260	2,010	1,730	640	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50
370 Box ErP	mm	562	1,197	500	590	2,010	2,830	1,090	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50
440 Box ErP	mm	562	1,197	500	590	2,010	2,200	1,090	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50
550 Box ErP	mm	562	1,197	500	590	2,010	2,830	1,090	156	790	396	567	272	FL. PN6-DN100	FL. PN6-DN50

# Alu HE - Alu Plus HE

MODEL	ALU HE						ALU PLUS HE			
	80	116	160	200	240	280	360	720	1100	
Nominal heat output (80-60°C)	kW	77.8	112.3	156.1	195.7	234.4	275.4	353.0	705.0	980.0
Nominal heat output (50-30°C)	kW	83.8	122.0	168.2	208.6	251.8	295.3	378.0	756.0	1053.0
Reduced heat output G20 (80-60°C)	kW	19.2	20.1	30.6	37.8	46.5	60.4	78.4	147.3	196.4
Reduced heat output G20 (50-30°C)	kW	21.6	22.8	34.3	42.5	52.0	66.0	84.5	158.0	211.0
Nominal heat input	kW	80.0	115.5	160	200	240	280	360	720	1000
Reduced heat input G20	kW	20.0	21.0	32.0	40.0	48.0	62.0	80	150	200
Minimum useful yield (80-60°C)	%	95.9	95.6	95.6	94.4	96.8	97.4	98.0	98.2	98.2
Maximum useful yield (80-60°C)	%	97.3	97.2	97.5	97.8	97.7	98.3	98.1	97.9	98.0
Minimum useful yield (50-30°C)	%	104.7	105.6	105.1	104.3	104.5	105.4	105.0	105.0	105.3
Maximum useful yield (50-30°C)	%	108.2	108.5	107.1	106.2	108.0	106.4	105.6	105.3	105.5
Useful thermic output at 30% of load	%	108.2	108.1	108.1	108.0	108.1	108.3	108.1	108.3	108.2
Electrical power consumption	W	211	263	230	360	408	438	532	1965	2134
NOx Class (EN 15502-1:2015)		6 (< 56 mg/kWh)						6 (< 56 mg/kWh)		
Heating regulation range	°C	20/80	20/80	20/80	20/80	20/80	20/80	20/80	20/80	20/80
Boiler water content	l	12.5	15.3	18.0	22.9	25.6	28.4	44.0	68.0	91.0
Maximum operating pressure	bar	6	6	6	6	6	6	6	6	6
Maximum operating temperature	°C	85	85	85	85	85	85	85	85	85
Load loss water side Nominal Δt (20°C)	mbar	65	80	80	90	90	100	160	160	160
Maximum Δt at min/max power	°C	35/25	35/25	35/25	35/25	35/25	35/25	25	25	25
Water flow rate Δt 20°C (nominal)	m³/h	3.34	4.83	6.67	8.41	10.08	11.84	15	31	43
Water flow rate Δt 10°C	m³/h	6.69	9.66	13.34	16.82	20.16	23.7	30	62	86
Max/min flue gas temperature 80-60°C	°C	66/57	65.1/56	61.9/58.1	69.6/58.1	70.7/58.3	69.2/61.5	68.1/55.3	70.1/58.0	74.6/63.2
Max/min flue gas temperature 50-30°C	°C	51/32	46.4/30.4	52.3/34.5	50.6/31	50.2/30.3	49.6/35.9	53.1/30.7	50.1/29.7	57.6/34.5
Weight	kg	140	160	180	210	227	245	450	580	680

## Overall dimensions

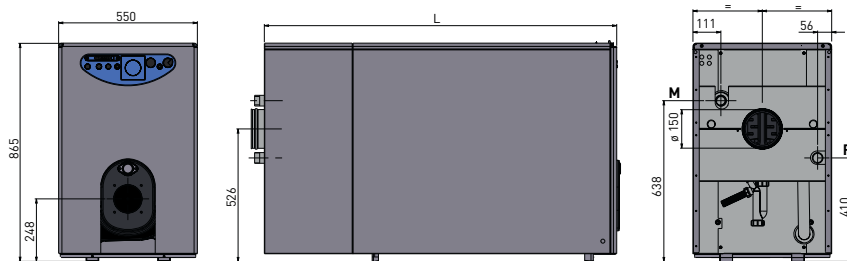


MODEL	L	P	B	B1	C	D	E	A	F	G	H	ø m Air intake	ø i Flue exhaust
<b>80</b>	mm	-	1116	170	81	-	71	872	595	93	-	80	160
<b>116</b>	mm	-	1116	170	81	-	71	872	595	93	-	80	160
<b>160</b>	mm	-	1116	170	81	-	71	872	595	93	-	80	160
<b>200</b>	mm	-	1317	239	158	-	75.4	870.5	510	118	-	100	200
<b>240</b>	mm	-	1317	239	158	-	75.4	870.5	510	118	-	100	200
<b>280</b>	mm	-	1317	239	158	-	75.4	870.5	510	118	-	100	200
<b>360</b>	mm	750	1652	100	1056	157	-	444	306	643.5	341	-	250
<b>720</b>	mm	850	1652	100	1056	186	-	472.5	377.5	643.5	372.5	-	250
<b>1100</b>	mm	850	1976	117	1366	186	-	472.5	377.5	645.5	372.5	-	250

## 2R HE ErP

	2R HE									
MODEL		6	7	8	9	10	11	12	13	
Heat output (80-60°C)	kW	74.5	82.0	98.0	114.0	134.0	151.7	172.0	192.0	
Heat output (50-30°C)	kW	78.7	86.6	103.5	120.0	142.1	159.7	180.0	202.0	
Heat input	kW	78.0	85.0	101.0	117.0	138.0	158.0	179.0	200.0	
Useful yield (80-60°C)	%	95.5	96.5	97.0	97.0	97.0	96.0	96.1	96.0	
Useful yield (50-30°C)	%	100.9	102.0	102.0	102.5	103.0	101.1	101.0	101.0	
Useful thermic output at 30% of load	%	103.0	106.5	106.0	106.0	106.0	103.9	103.8	104.0	
Heating regulation range	°C	30/85	30/85	30/85	30/85	30/85	30/85	30/85	30/85	
Type		B23P			B23P					
Elements	no.	9	7	8	9	10	11	12	13	
Boiler water content	l	37.7	84.3	94.9	105.5	116.1	126.7	137.4	147.9	
Maximum operating pressure	bar	4	4	4	4	4	4	4	4	
Load loss flue side	mbar	0.46	0.45	0.5	0.55	0.65	0.75	0.85	0.90	
Combustion chamber pressure	mbar	0.98	0.55	0.65	0.74	0.85	1.10	1.49	1.56	
Flue temperature (80-60°C)	°C	88.1	83	87.6	91.5	95.8	95.9	96.0	98.3	
Flue temperature (50-30°C)	°C	65.1	67	69.3	71.6	73.9	74.0	74.0	65.0	
Flue volume	dm <sup>3</sup>	81.55	108.2	126	143.8	162.6	183.0	201.0	219.0	
NOx Class (EN 15502-1:2015)		6 (< 56 mg/kWh)								
Weight	kg	324	400	445	490	530	570	610	659	

### Overall dimensions



MODEL		6	7	8	9	10	11	12	13
<b>R</b>	C.H. return	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"
<b>M</b>	C.H. flow	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"
<b>S</b>	Condensate outlet	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
<b>L</b>	mm	1232	1355	1478	1601	1724	1847	1970	2093

Within the scope of the "20-20-20 Plan", the European Union has passed a number of known directives including:

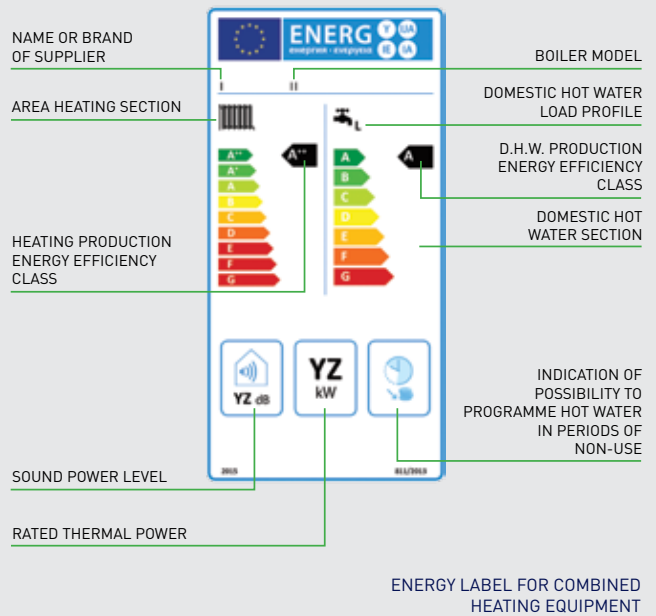
- › **Energy Related Products (ErP) Directive**, which regulates eco-compatible design
- › **Energy Labelling Directive (ELD)**, which regulates the labelling of devices based on their energy efficiency.

### ECO-COMPATIBLE DESIGN (ErP)

Regulations covering ECO-COMPATIBLE DESIGN define the requirements that products must satisfy in order to be commercialised in the European market **from 26th September 2015**, specifically in regards to minimum heating and domestic hot water efficiency, maximum allowed polluting agents and noise levels. Moreover, **from 1st August 2015**, domestic hot water boilers can only be operated with high-efficiency circulator pumps.

### ENERGY LABELLING (ELD)

**From 26th September 2015**, equipment with an output up to 70 kW and domestic hot water boilers with a volume up to 500 litres must carry **ENERGY LABELS** classifying products according to their level of efficiency, in a scale from **A+++** to **G**.



Fonderie Sime. S.p.A has obtained voluntary certifications ISO 14001 and OHSAS 18001, constituting international recognition of the commitment and responsibility assumed by Sime on matters of the environment and worker safety. Through the successful achievement of this objective, Sime has materialised its corporate mission, while undertaking to continuously improve its current activities and future processes.

