

Heat exchanger

ET - NU25 - ET - NU40 - ET - NU60 - ET - NU90
ET - CA25 - ET - CA40 - ET - CA60 - ET - CA90



INSTALLATION AND OPERATING INSTRUCTIONS

To be read carefully and kept for future reference

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1. TECHNICAL DATA

		Unit	MK1		MK2		MK3		MK4	
Primary		°C	90	45	90	45	90	45	90	45
Secondary		°C	25		25		25		25	
Power		kW	27	8	43	12	58	17	95	27
Flow rate	Primary	m ³ /h	0.72		1.2		1.74		1.8	
	Secondary		4.5		5		6.5		11	

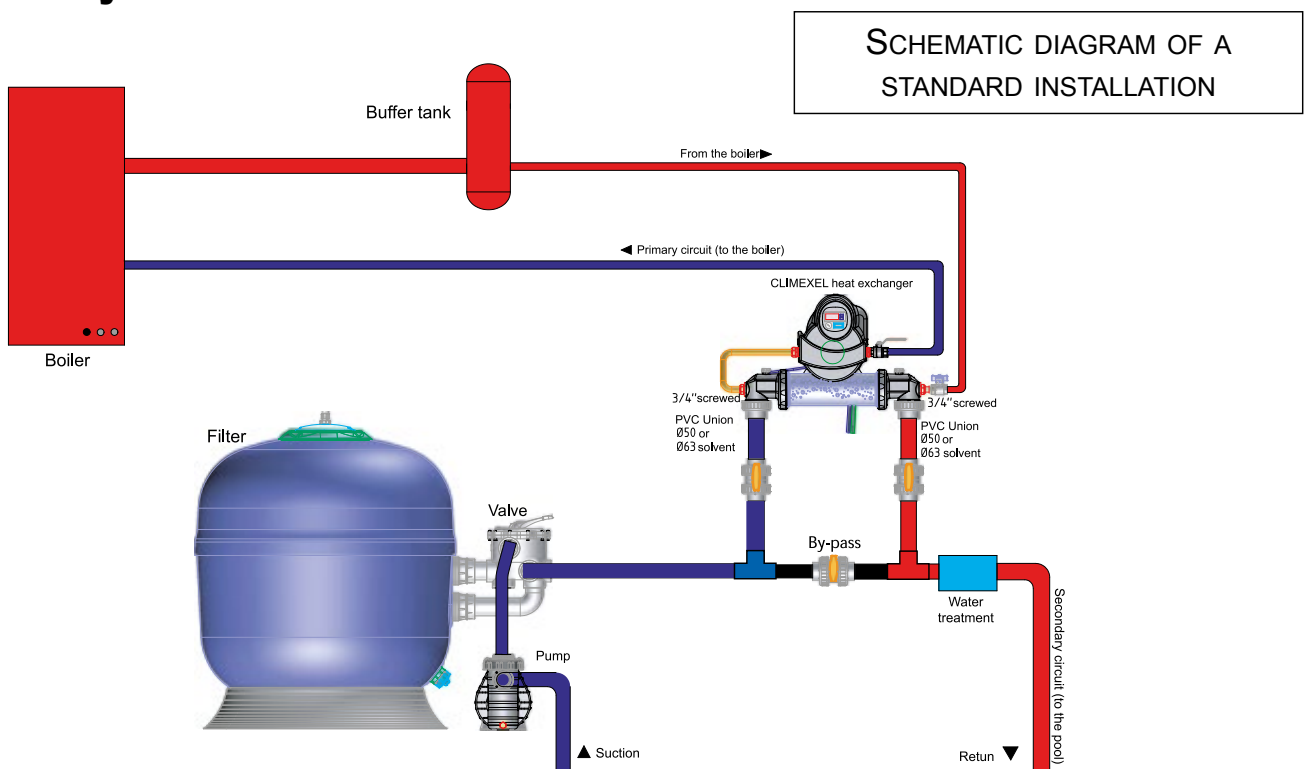
Primary connections	Threading 3/4"	
Secondary connections	PVC union, female, solvent 50 to 63 mm	
Operating temperature	Pool water	2 to 40 °C
	Primary water loop	45 to 90 °C
Max operating pressure	Primary	2 bars
	Secondary	1.5 bars

2. INSTALLATION OF THE HEAT EXCHANGER

2.1 Installation site

- Heat exchangers must be installed in accordance with the rules of the art and the standards in effect.
- The heat exchanger should be installed as close as possible to the boiler in order to minimise heat loss. If this is not possible, you will need to lag the primary circuit pipes with thermal insulation.
- For optimum heat exchange, the flows in the primary circuit and secondary circuit must cross within the exchanger.
- The heat exchanger must be connected directly to the boiler's hot water production system. It should under no circumstances be plumbed into an existing network (radiator circuit, residential hot water supply circuit, etc.).
- To mount the heat exchanger, use the support plate as a template to mark out the 4 holes that need to be drilled in the wall.

2.2 Hydraulic connections



The heat exchanger was originally designed for a pool water flow from left to right.

The water from the boiler enters from the left, flows through the heat exchanger in the opposite direction to the pool water and exits on the same side lower down.

The temperature sensor is inserted into the recess on the left-hand side of the heat exchanger (at the pool water entry point).

To invert the direction of water flow, do the following :

- Unscrew both of the 3 part unions on the circulator and invert them. Screw the 3 part unions back together.
- Take the temperature sensor out of the housing on the left-hand recess and insert it into the corresponding recess on the right hand side.

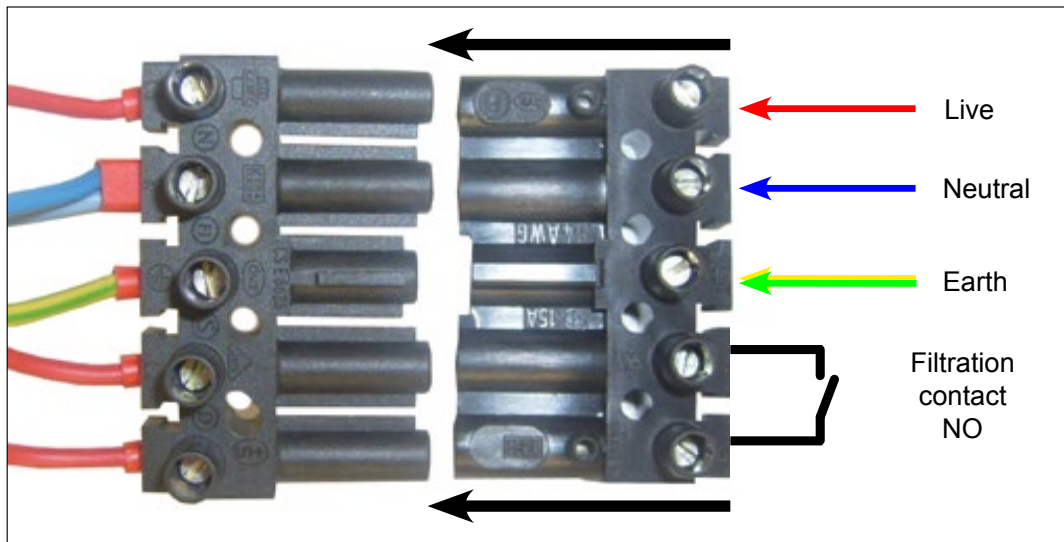
3. ELECTRICAL WIRING

Loosen the 4 screws to remove the cowling



Connect the terminals

- Red wire to live
- Blue wire to neutral
- Yellow/green wire to earth



Slaving the exchanger circulation pump to the filtration pump.

If the circulation pump is not slaved to the filtration pump, shunt the two terminals using the shunt provided. When a heating demand is detected the circulation pump will start up even if the filtration pump is not running.

CAUTION:

To avoid heating of the terminals, ensure that the terminal screws are well tightened.

Plug the male connector into the female connector.

CAUTION:

The heat exchanger seal ensures leaktightness of the heating circuit. The two nuts on the body of the heat exchanger should under no circumstances be loosened. Failure to comply with this instruction could lead to cancellation of guarantees.

Primary circuit

- The cross section of the primary circuit will be determined by the rate of flow into the heat exchanger (refer to the technical specifications of the various models).

IMPORTANT

When tightening (or loosening) the primary circuit connections on the exchanger's brass unions, hold the unions steady using a wrench to prevent any movement. Any rotation of the brass unions could damage the plastic body of the heat exchanger and give rise to a leak, cancelling any guarantees.

Secondary circuit

- The secondary circuit is plumbed into the pool return line, preferably in by-pass, after the filter and before the injection of any chemical products.
- Make the necessary provisions to cope with the risk of freezing during winter, notably ensure that it is possible to drain the secondary circuit completely (by means of a drain valve mounted on the installation or by loosening one of the unions on the heat exchanger).

4. STARTING UP THE HEAT EXCHANGER

Once the exchanger is plumbed in and wired, do the following:

- Start up the filtration pump and make sure that there are no leaks on the hydraulic circuit.
- Open the isolating valves on the boiler's primary circuit.
- Power up the heat exchanger. The digital display on the thermostat lights up, 888 blinks for a few seconds, then the pool temperature is displayed.
- Move the control switch to "On".
- If the pool temperature is lower than the set point temperature, the indicator light on the switch is illuminated indicating that the circulating pump is running.

Note : The indicator light is only illuminated while the circulating pump is running. Therefore, while the pool water is at the desired temperature, it is normal for the indicator light to be out although the switch is set to "On".

Changing the temperature set point:

Press the "SET" key and hold it down (less than 4 seconds), the value of the set point is displayed. The set point can be modified using the "UP" and "DOWN" keys once the "SET" key is released.

To increase the desired temperature, press the "UP" key, press the key repeatedly until the desired temperature is displayed (maximum 45° C), then press "SET" or wait 10 seconds.

To decrease the desired temperature, press the "DOWN" key, press the key repeatedly until the desired temperature is displayed (minimum 15° C), then press "SET" or wait 10 seconds.

Once the desired set point is displayed, wait for a few seconds, the pool temperature will be displayed again.

Note: the default temperature setting is 15°C.

While the snowflake is lit up, the device is running normally



5. OPERATING CONTROLS

To ensure that the heat exchanger is running correctly:

- Bring your ear close to the circulating pump, toggle the heat exchanger's On/Off switch, if the circulating pump is running correctly you should hear a low whistling coming from the pump motor.
- Place one hand on the inlet pipe of the primary circuit and the other on the outlet pipe of the primary circuit, you should feel a noticeable temperature difference. A noticeable temperature difference indicates that there is an efficient heat exchange between the primary and secondary circuits and, therefore, that the heat exchanger is running correctly. The body of the heat exchanger should be cold or at most at the same temperature as the pool.
- After a prolonged shut-down (winterizing), the circulating pump may fail to start up. To release it, unscrew the central stud using a screw driver, rotate the shaft one way and then the other. Once the circulating pump starts up, replace the central stud.

If, despite performing the checks listed above, the heat exchanger continues to malfunction this could be due to:

- Incorrect sizing of the primary circuit (pressure drop too high).
- Insufficient air purge of the primary circuit.

- Malfunction of the boiler's main thermostat (the water in the primary circuit is not hot enough).
- Under sizing of the boiler.

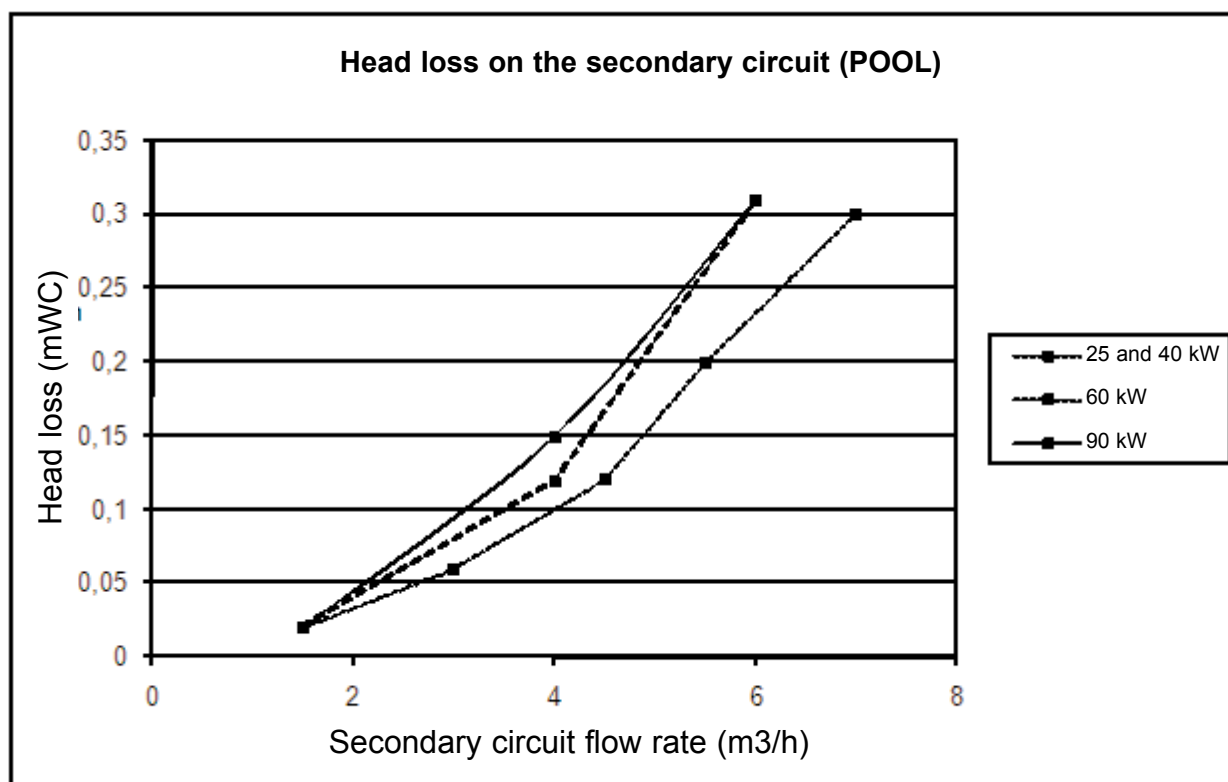
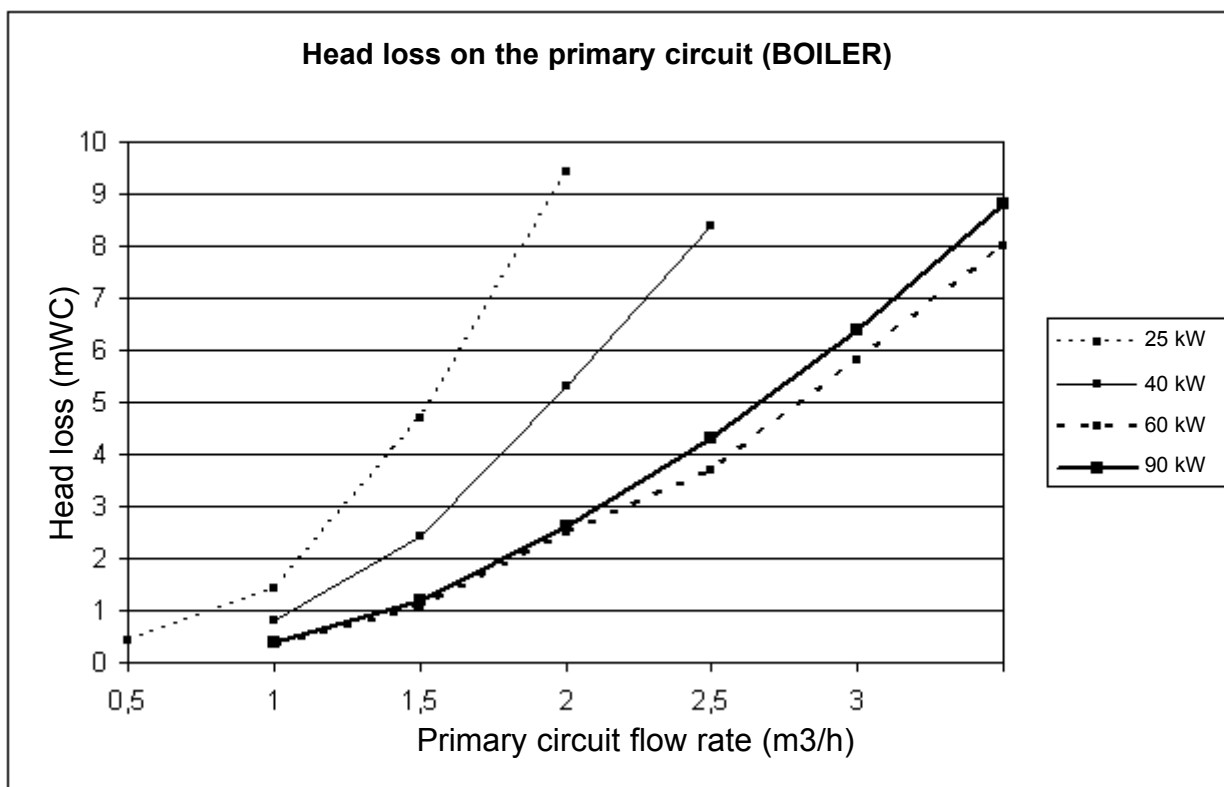
«PI» is displayed continuously on the screen, and the heat exchanger does not run: check the sensor connections or replace the sensor.

6. WINTERIZING

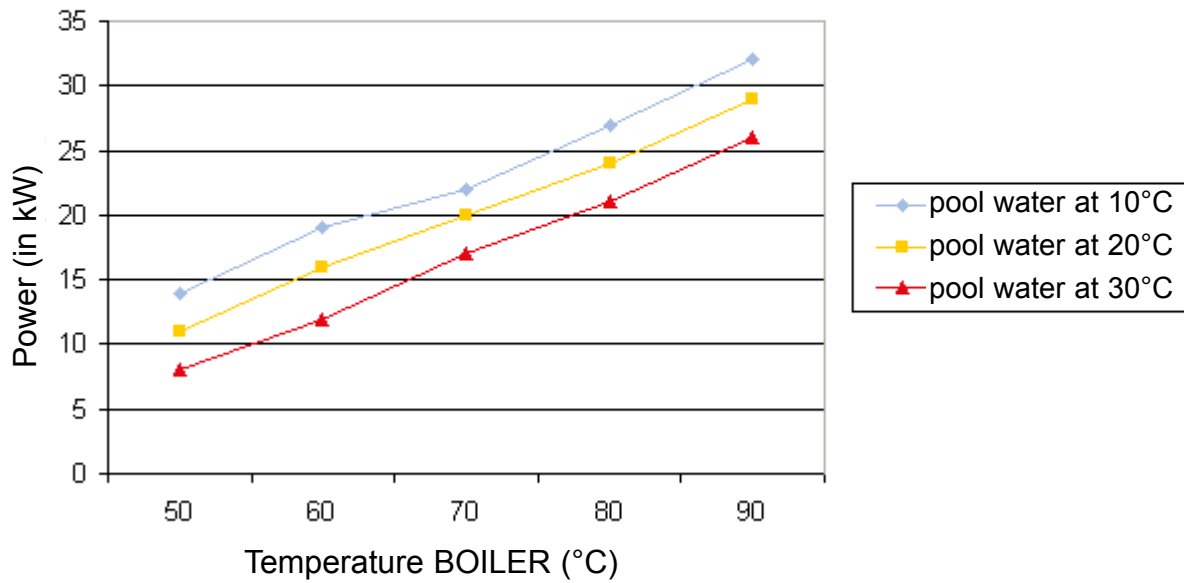
- Cut the power supply to the heat exchanger accessories (circulating pump, thermostat, etc.)
- Prepare the filtration group for winterizing by draining the various lines.
- Carefully drain the secondary circuit lines, especially if the secondary circuit runs outside between the heat exchanger and the filter.
- Drain the heat exchanger body (using the drain valve on the installation or by loosening one of the unions).

TABLE OF CODES		
Kw	Code	Description
25	9200200	Heat exchanger BWT ET-NU 25 kW
40	9200400	Heat exchanger BWT ET-NU 40 kW
60	9200600	Heat exchanger BWT ET-NU 60 kW
90	9200900	Heat exchanger BWT ET-NU 90 kW
25	9202200	Heat exchanger BWT ET-CA 25 kW
40	9202400	Heat exchanger BWT ET-CA 40 kW
60	9202600	Heat exchanger BWT ET-CA 60 kW
90	9202900	Heat exchanger BWT ET-CA 90 kW

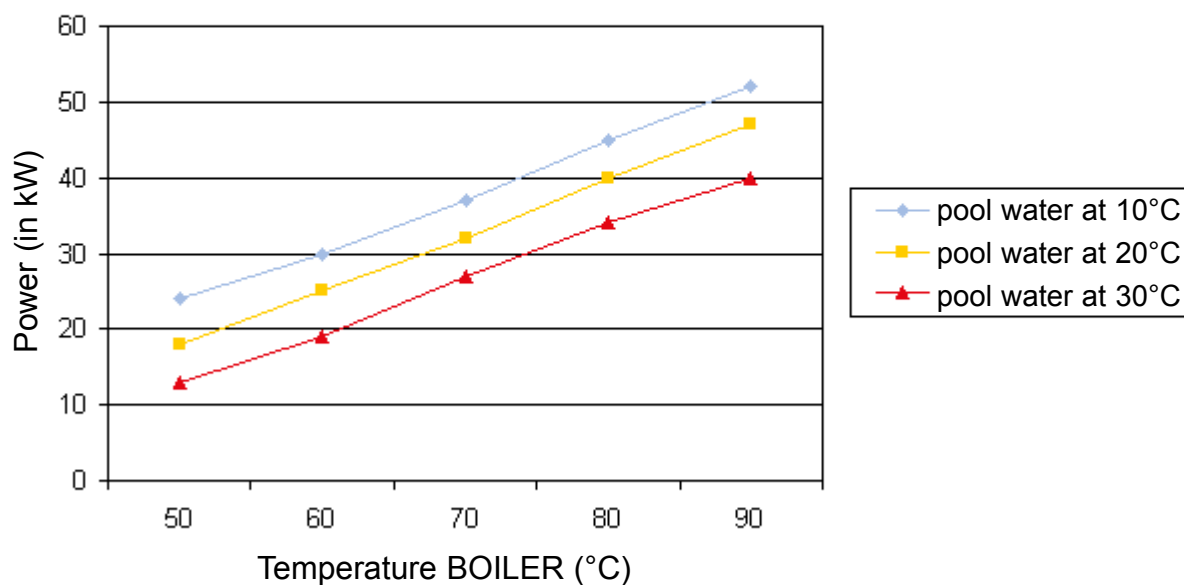
7. TECHNICAL DATA



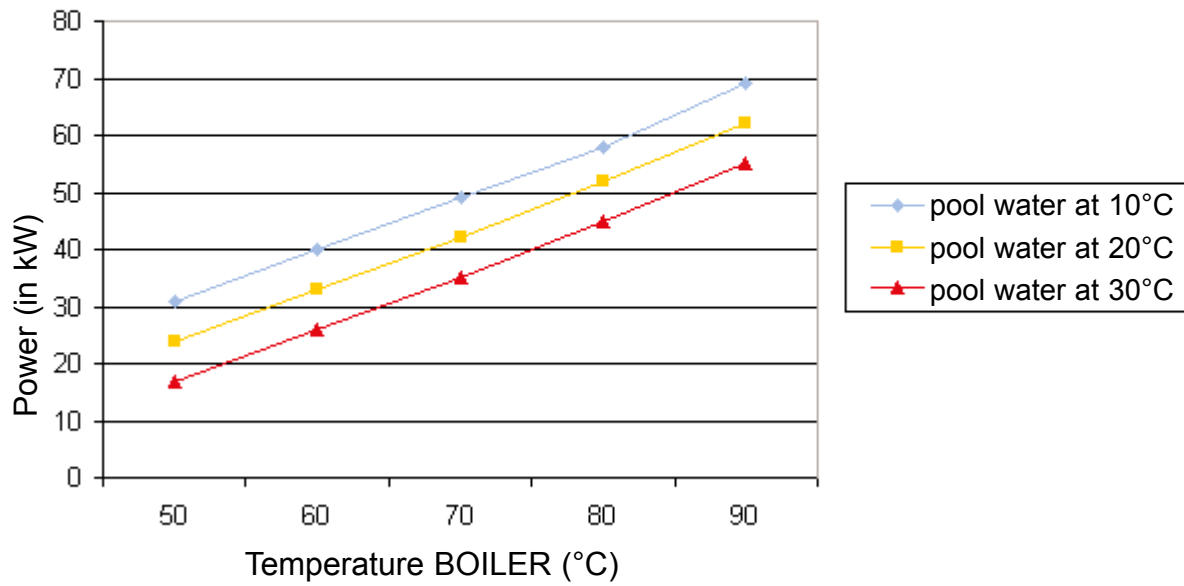
**- Heat exchanger BWT 25 kW -
Power output as a function of the boiler and pool water temperatures**



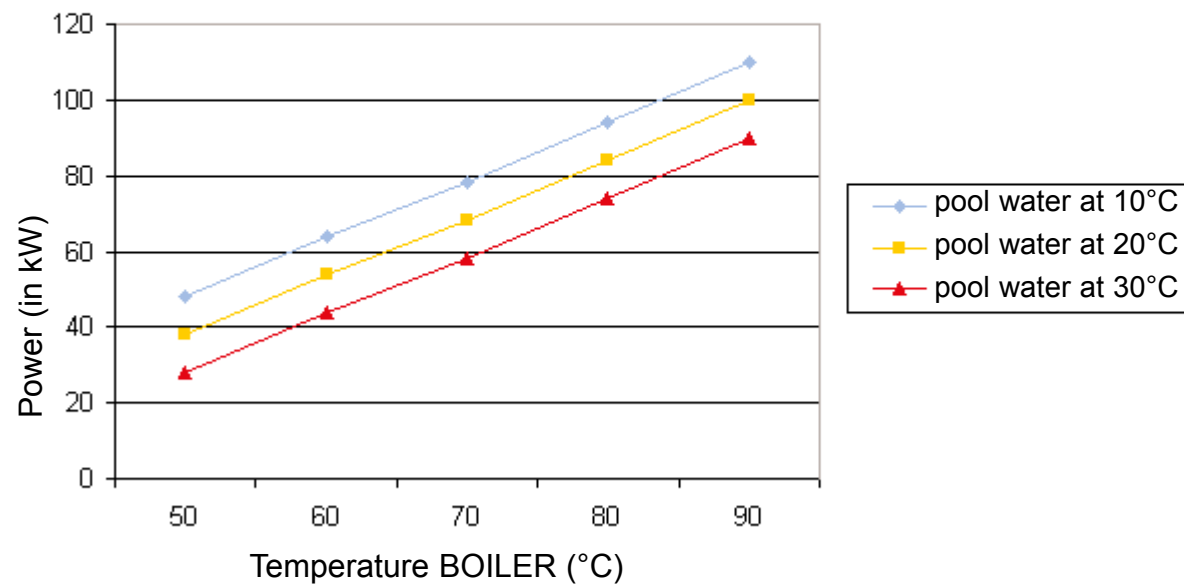
**- Heat exchanger BWT 40 kW -
Power output as a function of the boiler and pool water temperatures**



**- Heat exchanger BWT 60 kW -
Power output as a function of the boiler and pool water temperatures**

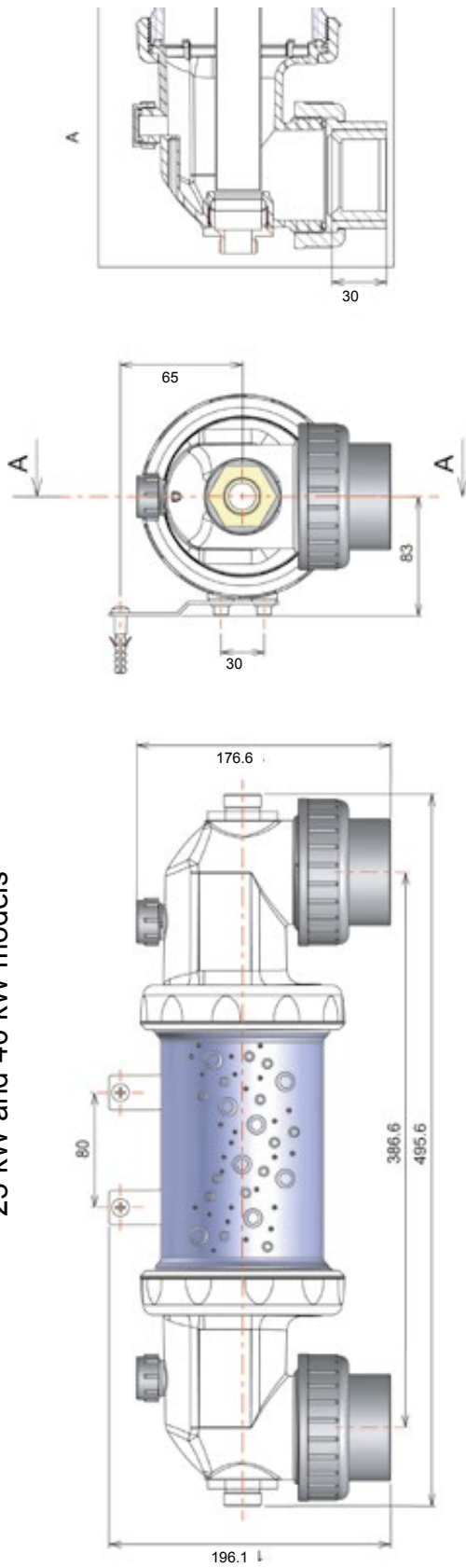


**- Heat exchanger BWT 90 kW -
Power output as a function of the boiler and pool water temperatures**

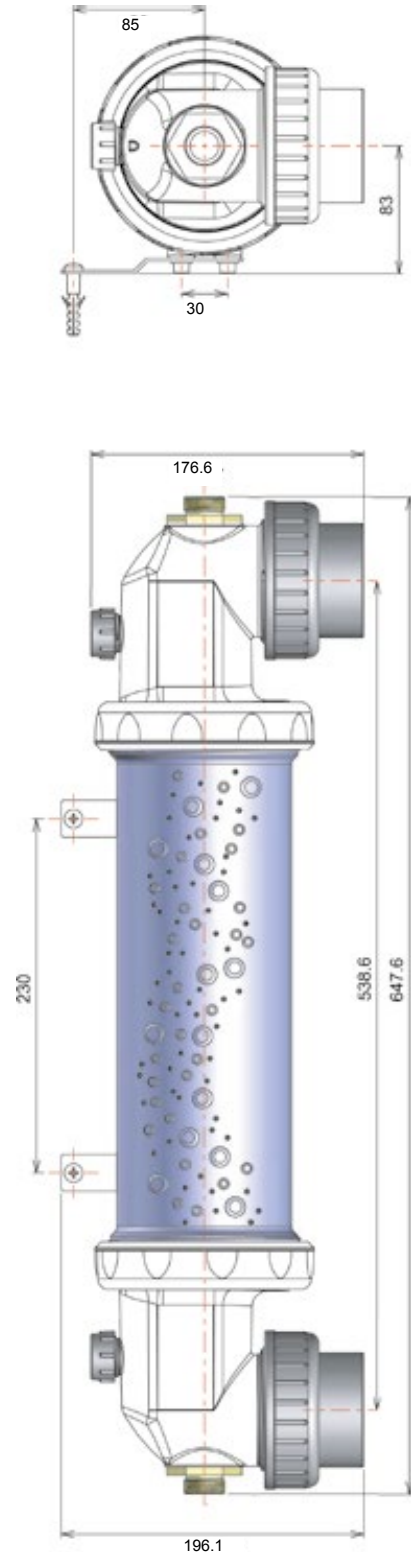


8. FOOT PRINT OF THE HEAT EXCHANGER

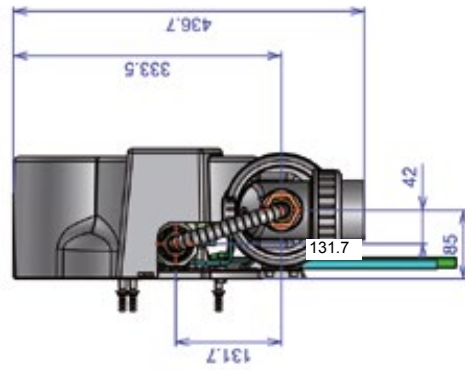
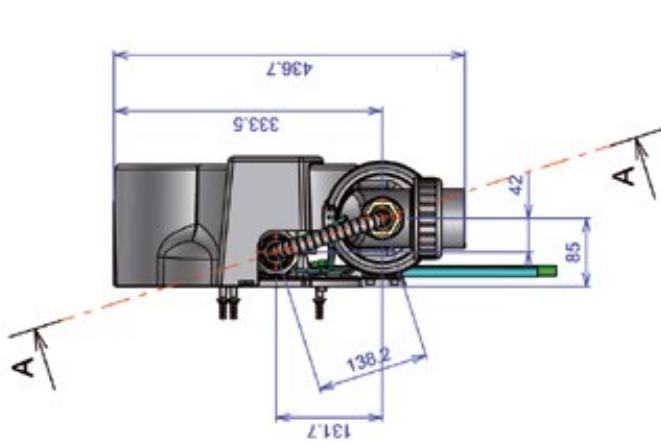
25 kW and 40 kW models



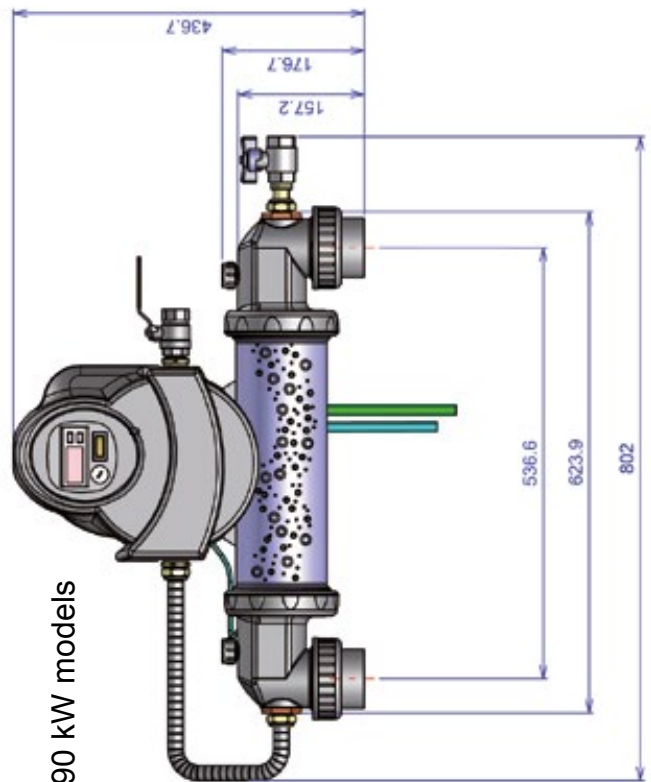
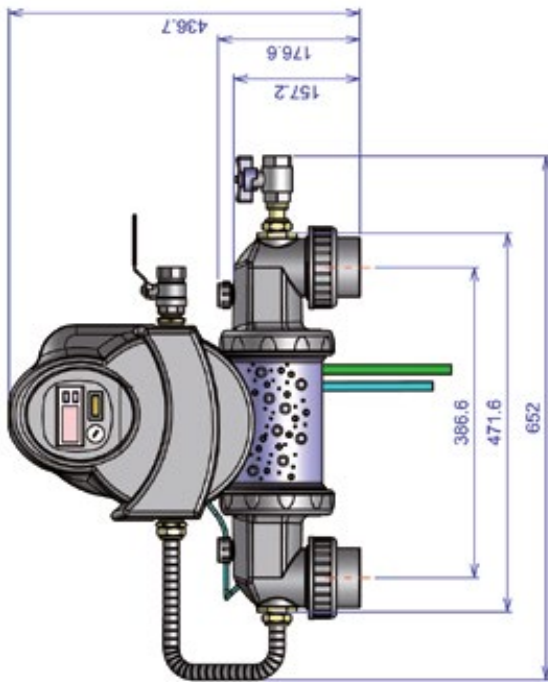
60 kW and 90 kW models



9. FOOTPRINT OF THE PRESASSEMBLED HEAT EXCHANGER



25 kW and 40 kW models



M60 kW and 90 kW models

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