

Heating and Controlling a Swimming Pool

Generally our Hydrotherapy Pools are fitted with a Balboa Digital display / control.

The Balboa control is really the brains behind the swimming pool system and is capable of carrying out several functions. It is sold as one part when installed, but purchased as two when buying. It comes with a separate push button panel usually mounted on the top of the pool.

1. It controls the filtration/ circulation pump. Starts and stops it according to the timer settings selected by the operator.
2. It controls the swim jets, turning them on and off
3. If an LED light is purchased, the Balboa box controls the on and off
4. The display screen will produce different fault/error codes to inform the user of any problems with the circulation system or the filter etc.
5. It has a built in electric heater that heats the water to the required pre-set temperature.



Additional heating options for the customer purchasing a Hydrotherapy pool from us include:

Air Source Heat Pump – HydroPro. This resembles an air conditioning unit and is positioned outside the building close to the swimming pool plant. There are quite strict requirements for installation including the concrete base it sits upon, the IP rated rotary isolator for the electrical connection and actual position and distance away from the wall and other objects that could affect the air flow around it.

Why should a customer decide to purchase an ASHP for their pool? Installing a heat pump results in considerably lower pool water heating costs and should be considered when buying pools with larger water volume.

Which heat pump should I buy? This is where we sometimes disagree with our heat pump suppliers. Because our customers heat their pools to a higher temperature than the average “home “swimming pool we require a higher specification heat pump. Additionally because our customers operate their

businesses during the winter, the heat pump will need to have the ability to heat the water during very cold potentially sub-zero temperatures. An undersized heat pump can struggle when it is very cold outside (just when you need it at its best). Our general rule of thumb is to specify two sizes larger than the supplier recommends for the volume of the pool.

The ASHP will require a concrete block placing outside for it to sit on. If you do not have suitable floor space for the ASHP, a wall mounted bracket (as per the picture) can be purchased, although additional installation costs may also be incurred.



NB. When the ASHP is fitted to the pool plant system, the Balboa heater is used as a backup or as a top up during extreme weather conditions that occasionally occur in the depths of winter.

Benefits of an ASHP:

- "All seasons" model works down to -5°C
- Quiet running
- For heating and cooling
- Easy temperature control with LCD display
- Automatic defrost
- High efficiency, COP up to 6.4
- 2-year warranty for heat pump
- Winter cover included
- Maximum pool volume depending on environmental conditions

Heat Exchanger – This is placed in-line as part of a radiator system, i.e. it requires a flow and return pipe and will be integrated as part of radiator heating system, and this may be fuelled by gas or oil. It is also connected to the pool plant and takes the heat from the boiler system and through the heat exchanger it heats the pool water.

The heat exchanger size is calculated in BTU's and is selected by the volume of the pool. Generally speaking our pools are going to require a 60,000BTU or 100,000 BTU heat exchanger.



NB. When a heat exchanger is fitted to the pool plant system, the Balboa heater is used as a backup.