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The Handyman France Idiots' Guide to Heating your Pool



There are many different opinions about what temperature is ideal for a pool, but few people favour cold water. And as relying on the sun alone to heat the water takes some time, you can have several weeks of half decent weather but cold water. If you rent your property, extending the pool season can lead to a longer rental season – and perhaps with higher weekly rates simply because the pool is heated.

But heating your pool will be expensive, won't it? The heater will be intrusive and ugly, won't it? Servicing and reliability issues will add to the cost, won't it? The answers to the first two questions is yes, but also no. As for reliability and maintenance issues, there are none worth mentioning with any of the following systems.

The main methods of pool heating are -

1. An in-line electric heater
2. An abri pool cover
3. A solar panel
4. A heat pump

All have their pros and cons, and here we'll explore the main benefits and drawbacks.

First, a very quick mention of gas heaters. Expensive to buy, though running costs can be reasonable. Installation requires the services of a gas registered plumber. Annual servicing needed, and must comply with several safety measures.

The **in-line electric heater** is the easiest to install on the pool's pipework, is small, unobtrusive and easy to operate. The capital cost can also be attractive, but as it consumes around 3kW for a small (20m³) capacity pool, rising to 12kW for 80m³ the running costs can be frightening. The electrical supply can also be a challenge if the pump room is very far from the fuse board. It is ideal for indoor pools and those where any other form of heating is impractical. Effective irrespective of weather conditions.



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The **abri** provides not only heating, but also satisfies the legal requirements for pool safety. Very, very expensive. And for some people, quite ugly. Running costs, though, are zero. It makes the pool usable virtually all year round and inclement weather rarely prohibits swimming as it effectively becomes an indoor pool when kept closed, but a conventional outdoor pool when open. The photo on the right shows a low level abri – much higher walk-in versions are available. At a cost!



Solar panels are favoured by many as no running costs are incurred, is environmentally friendly and the capital cost is reasonable. The downsides are that they can be unsightly, and they need a large area in which to be installed. It should be 50% of the pool's surface area so if you have a pool that is 10 metres by 5 metres, you need a 25m² panel. Usually, the only sensible place to put it is on the pump room roof – the paradox is that it's rarely big enough. Often, the pipework has to be extended so that the panel can go onto another roof. The exposed pipes can be ugly, and the panels themselves are not what you would call beautiful. Securing the panel to old tiles can be challenging. Of course, the panel could be ground mounted on, say, the lawn, but this is even worse to look at and gardening becomes something of an issue when weeds etc start to grow through the matrix. At considerable cost, a thermostatic valve should be used to close down the heater when the target temperature is reached, otherwise the water can be heated to well beyond acceptable levels, and even become dangerous as a result.



Last on the list is the most common of all heater types – the **heat pump**. Usually looking very similar to air conditioning units, they have become very efficient and quiet in recent years. Also, prices have come down, so the capital cost can be reasonable, depending on the capacity of the pool. Initially, the running cost can be quite high as it would need to run 24/7 for a few days until the target temperature is reached, but once it has achieved that it shuts down automatically until the temperature drops. You can even have reversible heaters to cool the water if it becomes too warm. Power consumption tends to be around 2kW for an average pool. Installation can be straightforward, but the unit must be placed outdoors which can be a challenge with some pump rooms. The necessary electric supply can be an issue, as few pump rooms have an adequate cable to carry the additional amps needed for the heater. There is also an ambient temperature limit. Models vary, but in the main anything below 15° and the heater doesn't work, though some models will work well below this temperature – but at a cost.

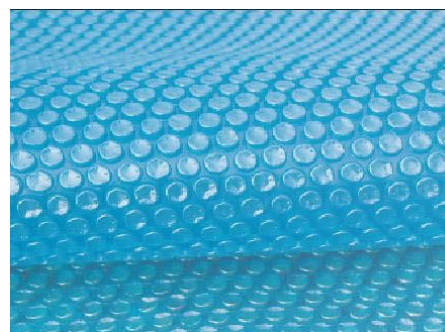


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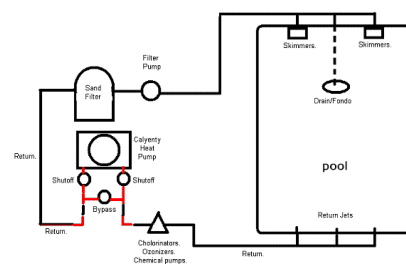
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Both the solar heater and the heat pump require some reconfiguration of the pipework with an additional three valves installed to control the water flow. Managing the actual water temperature with the abri is more difficult than the others because there is no simple way to prevent or encourage heating, whereas with the others you simply tell the system what temperature you would like and it does the rest for you.

A **summer cover** can help reduce your power consumption if you use any of the systems that rely on electricity. Looking like a big, heavy duty sheet of bubble wrap, it is very efficient at preventing heat loss during cooler times. However, if left on the pool for extended periods, it can encourage algae blooms. If you already have a safety cover of any type, the summer cover is unnecessary. You should also be aware that **a summer cover does not conform to any safety regulation**, and it can in fact be quite hazardous. If a child were to fall into the pool, he would almost certainly drift under the cover and be unable to get his head above water to breathe. *Summer covers must, therefore, be used with caution and with another effective and legal safety measure in place.*



Whichever type of heater is used, the positioning of it with regard to automatic chemical equipment is important. The heater should be connected to the return pipe, after the filter but before any and all automatic chemical injection equipment, with the pH-doser at the very end of the pool management system. Failure to observe the correct sequence can result in expensive damage to the heater, regardless of which type you install. Consideration must also be given to the distance between the heater and the pool's filtration pump. If sited too far from the pump, water flow and pressure will be lost and you will be left with a simple choice – a warm pool, or a clean pool. Because you won't be able to have both! Unless you have a booster pump at additional capital and running costs.



All heater systems are compatible with all types of pools, whether saline, chlorine, bromine, or bio-UV. Installation on sand filter systems is rarely a major challenge, though if the pipework has been badly installed the new, additional connections can mean considerable reworking of the pipes. If you have a filter cartridge or filter bag system, installation is usually more difficult and therefore more expensive – but not impossible.

The choice of heater is therefore dependant on a number of criteria. Capital costs vary according to the size of the pool and the type of heater. Year round heating is only possible with the abri and electric (or gas) heaters. Solar panels and abri have no running costs. The most popular heater is the heat pump, which offers a reasonable compromise on most issues, is very effective and readily available.

You pays your money, and you takes your choice!

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