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# Cover stories: a practical guide to getting the right pool cover

Pool covers are the most cost-effective way of saving heat energy used to run a swimming pool. Will Dando advises on getting the right cover for your needs.

#### Why get a cover?

With environmentally concerned organisations such as the Carbon Trust advising the use of pool covers, pool managers should need no convincing about their benefits. Costly as they may be as a one-off investment, pool covers save energy and conserve water (and so water treatment chemicals) and contribute to a reduction in your facility's carbon footprint. Add to that various safety considerations and the case is surely made, although in commercial settings simple energy conservation may be considered the most relevant argument for covering up.

Before diving into a purchase it is important to remember that there is a difference between heat retention covers and safety covers. The latter need to be fixed to the structure whereas a heat retention cover lies on, and is supported by, the water. A normal heat retention cover may make the pool less alluring to jump into but conversely may encourage the foolhardy to try to walk on it. These covers are not designed to support the weight of a person and it is therefore crucial not to allow access to the poolside by unauthorised people.

#### Using the correct materials

The material used for the cover is important from an energy-saving viewpoint but also to enhance the longevity of the cover. Heat retention covers should ideally be at least 5mm thick, which is the industry standard. The greater the thickness of the cover the better the insulation properties and the longer the cover's life. Of course the extra cost of a thicker cover will need to be assessed against these potential benefits. While considering materials give a thought to the manufacture of the rollers. The correct materials for these, which carry the cover when it is not deployed, should be either 304L or 316L stainless steel and this should be cleaned at least quarterly. 304L steel should always have a bright polish finish on any exposed sections, while the 316L can be any type of finish.

#### One size does not fit all

It may seem like an obvious thing to say but you should ensure that the cover is sized and fitted properly. Quotes can be obtained from pool companies based on approximate dimensions but to avoid any potential operational issues get a professional company to accurately measure the pool once you are ready to make your purchase. It may be possible to cut an oversized cover smaller but a cover that is too small cannot easily be enlarged and transport costs back to the factory can be prohibitive. When specifying the size of your new cover take account of any off-set entry and exit steps and any other obstructions that may come into play when operating the cover. You need to ensure that as much of the pool as possible is covered while still ensuring that there is no chance that the cover might be guided out of alignment or of it snagging up. Bear in mind also where you will site the cover in relation to the pool tank. It is an important decision and there is no definitive answer as to whether it should be stored at the shallow or the deep end. Of course if the pool is of a constant depth the only factors to bear in mind are customer flow, access to fire exits and possibly aesthetic considerations. A significant factor to take into account is the amount of available pool surround and you do not want to unnecessarily restrict this space. The storage area should be near the pool to avoid dragging the cover along the ground with a good steep angle of attack so that the minimum of effort is required to guide the cover onto the pool surface. Where electricity is involved then to conform to electrical regulations the cover should be stored at a high level.



Taking cover: there is much to consider when opting for pool systems

"Whichever cover you choose, the ease of operation for getting the cover on and off the pool is of paramount importance and a motorised cover is better than a totally manual version."



#### Types of covers

Flexible floating covers come in two main types: heat retention covers for heated indoor pools and bubble-type solar covers for outdoor pools. Both can be made to suit a commercial situation. A slatted floating cover (which can also be insulated) can be fully automated, although there are limitations on the maximum size. Heat retention covers are designed to reduce the amount of heat lost while the cover is on the pool so it is important to make sure that the cover is easily operated to take advantage of any time when the pool is not being used. To go one better you can use solar covers, which are effective in increasing the heat transfer into the pool to warm the water. Unfortunately this type relies on direct sunlight and this is of no help if the pool is to be used whenever the sun is out. Other types of cover are available, from liquid floating covers to floating disks or balls, but in a commercial situation the use of a robust floating cover is indicated.

#### Safe and efficient operation

Whichever cover you choose, the ease of operation for getting the cover on and off the pool is of paramount importance and a motorised cover is better than a totally manual version. Your staff will appreciate the motor's assistance but they will need to be suitably trained, both to keep the process as safe as possible for them and to minimise the chances of causing any damage to the cover. Supervision when taking off or putting on the cover is important and an emergency stop on the remote control or on the wall is vital in case there is a need to halt the procedure. Getting the cover off quickly and easily every morning before the first session means there is no delay to the session and covering the pool efficiently at night means the staff can finish work that little bit sooner.

#### What next for commercial covers?

There is discussion across Europe about standards and norms for commercial pool covers as part of the (BS) EN 13451 Part 12 process. The basis of this discussion is the safety considerations for the cover materials and their safe operation. The standards working group wants to have a draft document available by the end of this year so that by working across Europe there will be an opportunity to share good practice, to learn from other countries and to have a norm that is practical and relevant.

### Will Dando is technical manager for Plastica Ltd and a member of the SPATA technical committee.

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