



Leak Detection

This sheet is designed to explain the services Aqua Services offer, and the processes followed in determining the location and the successful repair of a leak.

Overview

A totally logical process must be adhered to and no assumptions should be made which could lead to a lot of time (and cost) being wasted. Also worth considering is the fact that the pool may be leaking in more than one place.

Location

To determine whether it is in the pipework or pool shell we would measure the drop in water level over a fixed period with and without the circulating pump running.

If the rate of drop is different with the pump running then that would indicate a leak within the circulation system.

Pipework leaks

Having eliminated leaks down the waste line the individual pipes between the pool and plant room are pressure tested.

The location of the leak(s) on the failed line then needs to be determined.

To minimise the amount of digging and the disruption to the pool surround we will use a combination of listening devices and Helium detection to 'home in' on the leak.

This process can be very successful, but is dependent on the size of leak(s), location, type of material covering pipe such as concrete, paving, soil.

If a successful trace is detected, then we would excavate at that point and hopefully locate and repair the leak.

There are however situations where it can be more cost effective to replace the faulty pipework section without finding the actual leak location.

Liner pools

If a pipe-work leak has been eliminated in a liner pool then the leak will either be in the liner, the join between the liner and the fittings such as the skimmer or fibreglass step unit, or in the fitting itself.

Initially, a visual inspection is carried out for any tears in the liner.

We also use an electronic 'leak track' device which measures the conductivity between the pool water and the surrounding soil. Under the right conditions, this is capable of locating a pin-hole leak in the liner, therefore saving hours of dive time trying to locate it visually.

Once a leak is found in a liner, it can usually be repaired without having to drain the pool.

Concrete pools

A visual inspection to determine if there are any cracks in the shell, followed by a dye test by any cracks found, and around any fittings to determine the location of the leaks.

Minor leaks can be repaired under water without having to drain the pool.

Otherwise, the pool will need draining and the extent of the fault determined to decide what remedial action is needed.

It is important to note that in rare circumstances, the precise location of the leak cannot be established. However, by following the above steps the chance of finding a leak is significantly enhanced.