



## Letts Swimming Pools

### Investigating pool leaks

#### **Check condition of waste valve**

This valve can often allow water to go down the drain unnoticed. Check that this valve is closing properly.

#### **Preliminary observations**

Does the water level come to a natural halt when it reaches a fitting around the pool, such as a light, vacuum point, skimmer, or inlet? This will indicate the point where the leak may be. Note – make sure that ground water outside the pool in the natural water table is low, or that a submersible pump is being used to clear ground water. Damage to the pool may occur if precautions are not taken when the water level is dropping.

#### **Pump on/pump off test**

Fill pool to normal level

Carefully measure the drop in water level over a period of time with the filter pump running continuously. This time period could be 24 hours for a fast water leak, or a week for slower leaks. Be as accurate as possible. Place a bucket by an outdoor pool to record rainfall and account for this in the drop in level of the pool. Can any air bubbles be seen entering the pool via the inlet/s?

Fill the pool to the same level as before.

Switch the pump off and record the drop in level over the same period of time.

Note that air bubbles can be caused by a leak anywhere in the pipes from the pool through the valves to the pump inlet, and in the pump itself (especially the lid).

#### **Greater water loss with pump on**

Suspect a leak in the underground pressure pipes leading from the plant room taking water back to the pool

#### **Greater water loss with pump off**

Suspect a leak in the suction pipework carrying water from the pool to the pump, especially if air bubbles can be seen entering the pool.

Block the end of the skimmer, drain sump and vacuum point in turn. Does the quantity of air bubbles entering the pool increase? Do the air bubbles stop when the corresponding valve on the pump manifold is closed?

#### **No difference whether pump is running or not**

Suspect skimmers, lights, pool wall crack, perforated or split liner



### **Skimmer leaks**

If the skimmer or skimmer pipe is suspected, close the skimmer valve near the pump and drop the level of the pool below the bottom of the skimmer. This is most easily done by back washing the filter or vacuuming to waste. Switch off the filter pump.

Remove the skimmer cover plate and pour a bucket of water into the skimmer. Does the water level drop? This may take a while. The dropping of the water level in the skimmer will stop at the leak point. Check for cracks and holes. If the water level disappears into the pipe at the bottom, a pipework leak is indicated.

### **Very small leak detection**

There is a method for looking for very small leaks which involves the use of underwater breathing equipment. This is done by delicately releasing small amounts of food colourant from a dropper or syringe, in still water, near to the suspected leak. A leak will be noticeable by drawing the dye towards itself.

### **Repairing pool leaks**

If the leak is found to be in pipe lines, usually the pipe will need to be exposed for repair or replacement. Sometimes a pipe can be sealed at both ends, taking it out of service.

Light fittings, pool wall connections and skimmers can be repaired using sealants or epoxy putty.

There are many of these that can be applied underwater, eliminating the need to drain the pool.

If cracks in the pool wall are the cause of the leaks, the pool should be drained and the cracks filled.

Take care to pump away any ground water around the pool first.

Small liner splits can be repaired using a repair kit which can be applied under water. Large splits in the liner or perforations will usually mean replacement.

There are proprietary leak sealants, such as Fix-A-Leak, that can be poured into the pool water to seal small leaks by migrating into any cracks or holes. This is usually a short term cure, if it works at all, and it does not work in leaks in the suction pipes where air is being drawn in.

### **Draining your pool**

Please contact Letts Swimming Pools for advice on draining down your pool. This must be done carefully to avoid major damage. A range of suitable submersible pumps are available from Letts to buy or hire

These instructions are a guidance only when addressing specific problem(s) with your pool. Without knowledge of all the variables in a given situation we cannot take responsibility for any damage that may be caused by non-Letts personnel when carrying out these tasks.

## **Letts Swimming Pools**

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