

Biofilm

Biofilm is the biggest enemy of the spa. Standard water treatment products all fight against the notorious biofilm that consists of bacterial colonies. Below you can see a spa that has been exclusively treated with normal chlorine. There were leakages on several places.

After cutting the pipes of the spa, an enormous amount of biofilm appeared. The most traditional way to solve this problem would be to flush out the pipes with high levels of chemicals for days and damage the spa even more.

The spa owner had to have used a lot of chlorine to keep the water clean, since the biofilm in the pipework was so gigantic. Costs to repair can be substantial.



Silicone Sealing Rings

O-rings are between all joints and connections of pumps and heaters. The first pictures show two sealing rings from a spa maintained with AquaFinesse for 10 years. After 10 years, the O-rings are still reasonably transparent. With the use of chlorine, they mostly become yellow and weak, eventually dissolving and resulting in leaks. The black rubber rings will eventually dissolve completely as they are made from rubber.



The O-rings are still totally clean after use of AquaFinesse. There is no sign of damage. The sealing rings below have been used since 2004.



Hydro massage pump

Harsh chemical products such as chlorine can damage equipment. The water behind the drive shaft is held back by an O-ring which is affected by the high level of chlorine and will eventually break and start leaking. It begins with moisture, then drops and in the end the water reaches the electrical coil of the pump which will cause the pump to break down.

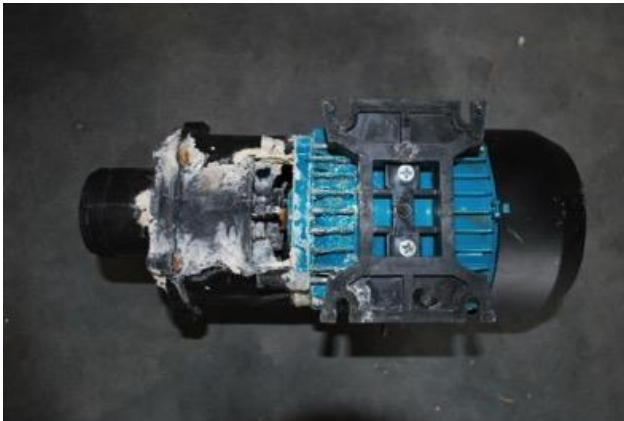


Spa maintained with AquaFinesse for 10 years:



Circulation pumps

Circulation pumps usually run 24 hours a day. These pumps are rather small and quiet pumps. As you can see on the picture, this is a clear case of an O-ring corroded under the influence of chlorine and bad PH levels.



Pump from spa maintained with AquaFinesse for 10 years:



Heaters

Heaters will generally break down because of bad pH levels. This causes rust and eventually damages the welded joints, the weakest part of the heater. As a result, there will be a short circuit and the heater will be broken.

Although a heater can have a protective coating, the heater will eventually break down if the correct pH levels are not maintained. With AquaFinesse, water stays better balanced.

Heater from spa maintained with AquaFinesse for 10 years:



Broken heaters:



Pump wet end

The pump wet end is the part of the spa that has to do the work. It is an impeller that is attached to the pump motor. Its function is to push the water through the spa pipes and through the spa jets. When there is calcium buildup on the wet end, the surface becomes rough. This is the ideal spot for bacteria to settle.

Effects on spa maintained with standard chlorine:



No damaging effects on spa maintained with AquaFinesse since 2004:





Spa bath and parts

It is not surprising that bad water treatment affects all kinds of spa parts. The bath itself, the cover, display, control panel, buttons and so on. This damage is irreparable.

Here are some pictures that indicate the effects of chlorine treatment.



Diaphragm pumps

Sometimes diaphragm pumps, also known as membrane pumps, are used as circulation pumps. Just like other pumps, these small ones also perish due to calcium and biofilm.



Rotating massage jets

The massage jets rotate very fast and smooth. But over time, a thin layer of calcium forms on the ball bearings. In the worst case the jets stop rotating completely.

The jets on a spa maintained with AquaFinesse for 10 years are still clean and run correctly. Even the discoloration is minimal, which is expected after 10 years.

