

AFM[®]

The unique bio-resistant
activated filter media



What is AFM[®]?

AFM[®] is an **A**ctivated **F**ilter **M**edia manufactured from green glass to replace sand in all types of sand filters. AFM[®] is a revolutionary step by providing more than a 30 % performance benefit over sand. The activated surface of AFM[®] is self-sterilizing which prevents bacteria mud-balling, coagulation and worm-hole channelling of unfiltered water through the filter bed. Activation increases the surface area 300 times. Similar to activated carbon, the surface nano-structure adsorbs pollutants from the water to produce crystal clear sparkling water with no chlorine smell.

AFM[®] reduces the biological risk from bacteria and parasites as well as the chemical risk from water and air just above the surface. The result is a safer pool for children, a healthier work place for staff in public pools and a greatly improved swimming experience for everyone.

AFM[®] is successfully working in over 100'000 private and public swimming pools worldwide.



Your benefits at a glance

- ✓ **Crystal clear water:**
AFM[®] filters at least 30 % more than silica or glass sand.
- ✓ **Lower consumption of chlorine:**
Everything filtered out doesn't need to be oxidized by chlorine. The better the filtration, the lower the chlorine demand.
- ✓ **No trichloramine – no chlorine smell:**
AFM[®] prevents growth of biofilm therefore eliminating trichloramine.
- ✓ **No biofilm – no Legionella:**
Biofilm is a slippery film of bacteria, that can provide a home for pathogens such as Legionella, Staphylococcus and (MRSA) Pseudomonas.
- ✓ **Chlorine-free systems:**
AFM[®] greatly reduces the oxidation demand of the water which makes it perfect for chlorine free systems.



Treat yourself and your family to the best

Why is biofilm a problem?

Silica sand is a good filtration media but it also makes a perfect home for growing bacteria. Bacteria like to stick themselves onto the sand by secreting an alginate jelly. The alginate forms a film that protects the bacteria from oxidation by chlorine. Some species of bacteria use carbonates to make organic matter, which doubles the chlorine demand after about six months.

Other bacteria produce an enzyme that converts urea into ammonia which then reacts with chlorine to form mono-, di- and trichloramine. Trichloramine is responsible for the chlorine smell; it stings your eyes and can cause lung damage and respiratory problems such as asthma.

AFM® is manufactured in a state-of-the-art hygienic factory designed by Dr. Howard Dryden to solve all these problems. It contains metal oxide catalysts that dissociate oxygen and water to create a zone of high oxidation potential to prevent bacteria growing on the surface of AFM®. In addition, the huge activated surface area has a strong negative charge for the adsorption of sub-micron particles and dissolved organic molecules. This makes AFM® far superior to any other filtration media because AFM® is recharged by a simple back-wash.

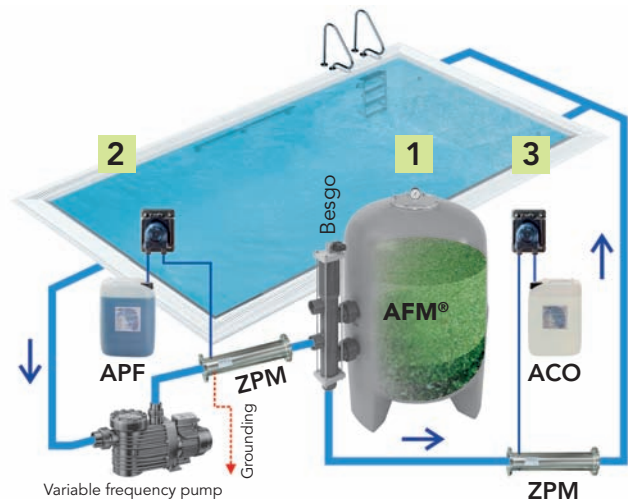
What makes AFM® so effective?

Dryden Aqua Intellectual Property protects AFM® but we are happy to share some of the key points;

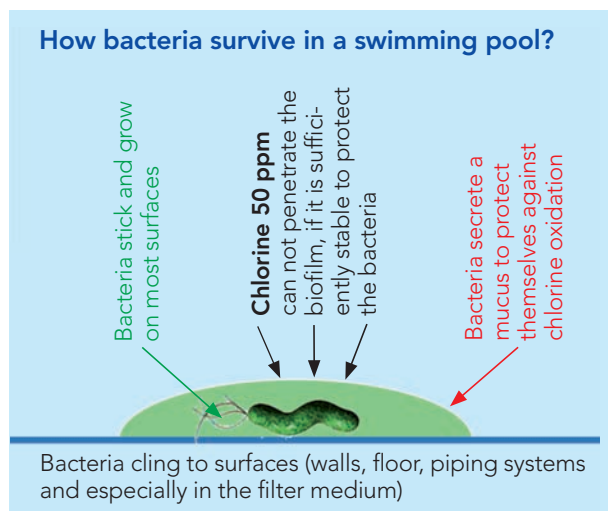


- 1 We use predominantly **green container glass** as it has the correct chemical and structural properties for our activation process.
- 2 **Particle shape** and size distribution are critical for the best fluid hydraulics and solids retention. For example, solids can easily push their way through glass bead filter media but with a sub-angular AFM® media, the grains lock together to prevent the solids slipping through.
- 3 The AFM® **activation process** increases the surface area available for adsorption to 300 times over 1'000'000 m²/m³. This means 300 times more surface area for the adsorption of dissolved organic pollutants. The huge surface area coupled with the magnetic attraction of the negative zeta potential makes AFM® the best filtration media for your pool.

DAISY filter circulation for private pools



- 1 Filtration with **AFM®**
- 2 Coagulation and flocculation with **APF** and **ZPM**
- 3 Catalytic oxidation with **ACO** and **ZPM**



Who is Dryden Aqua?

We are marine biologists specialising in swimming pool water treatment. Our mission is to eliminate toxic chlorine by-products and provide the best air and water quality on the market. For over 30 years we have been working with chlorinated systems for dolphins and other aquatic mammals before successfully introducing our technology to the pool industry. Today, as a testament to the performance, safety and benefits of our integrated water treatment system, there are over 100'000 swimming pools worldwide using our products.