

AFM® Water Treatment

AFM® Technology is applicable in all areas where biology plays a role or might influence the quality of water treatment. Some key examples:-

Replace Sand in MGF of Water Treatment:

In MGF in raw water treatment plant, the filter media Sand has to be changed every 3-5 years. Sand can retain only 10-20 micron suspended solids and cause channeling with time. Sand also needs dosing of chlorine/hypochlorite to prevent bio fouling. AFM needs to be replaced after 15-20 years and it can retain up to 5 micron suspended solids. AFM does not need biocide/chlorine/hypochlorite dosing prior to filtration. Thus AFM provides lower OPEX.

Pre-treatment prior to RO membranes:

Maintenance of cartridge filters and fouling of membranes for RO and UF is a major cost. AFM® has much better fine particle retention than sand (up to 1 micron with flocculant). It also reduced fouling because it does not contain free silica that cause silicate blockage. Sand filters are biofilters and constantly discharge bacteria into the product water to foul the membranes.

Removal of Arsenic, Ferric and Manganese:

AFM® will remove many metal contaminants from the water, and is particularly effective for arsenic and ferric. Contaminated water is usually ground water which must be strongly aerated for a period of at least 30 minutes prior to filtration. If arsenic needs to be removed, additional ferric may be added to achieve a ratio of 10:1 (ferric : arsenic) to facilitate oxidation and co-precipitation.

Cooling tower side-stream filtration:

Water treatment is essential for cooling tower recycled water. AFM® removes nutrients to control pathogenic bacteria such as Legionella thereby reducing requirement for corrosion inhibitors, biocides and anti-scalant by up to 50%.

Tertiary treatment of effluent:

AFM® replaces sand in tertiary treatment filters without the need for any modifications. AFM® will not bio foul and will provide more than double the performance of the treatment system, offering a sustainable, low cost and high performance alternative to sand.

These are only a few extracts from a spectrum of applications for AFM® activated glass filter media Technology.

AFM® is the highest performance, most tested and most certificated filtration media on the market.

We thrive on the challenge of new applications and welcomes any enquiry where our technology might make a difference.



Summary of AFM® Properties and Certifications

Product ID

Name : Dryden Aqua AFM® – Activated Glass Filter Media

Usage : Replaces Sand in all water filtration applications

Material : Green & amber up – cyclized glass. Optimized mechanical filtration performance with activated mesoporous surface

Unique Features: Bio – resistant, self – sterilizing, predictable performance, filtration down to 1 micron (Grade 0), 4 microns (Grade 1)

About AFM®:

AFM® is one of the most efficient granular filtration medium available on the market. It is highly engineered to give optimum mechanical filtration performance in a range of industrial and municipal water filtration applications.

AFM® replaces and in all filtration applications and can be used in a conventional sand filter without modification.

AFM® Production: AFM® is

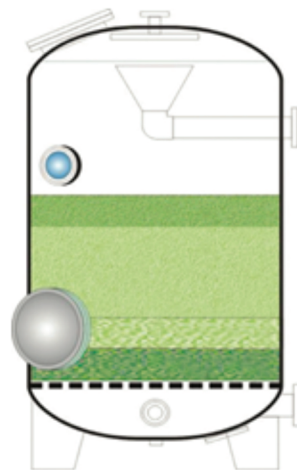
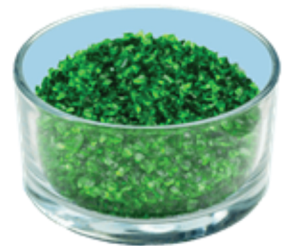
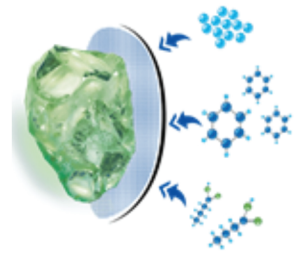
- Manufactured from very specific green and brown glass types.
- Engineered to obtain optimum & consistent particle size & shape.
- Activated to increase surface area up to 300 times of that of crushed glass or sand.
- Chemically and thermally treated to ensure permanent negatively charged surface properties that make AFM® self – sterilizing

AFM® Performance: AFM®

- Will not support bacterial growth.
- At up to 20m/h will consistently filter, without flocculation
- > 95% of 5 micron particles (Grade 1)
- > 95% of 1 micron particles (Grade 0)
- Will selectively filter positively charged ionic particles, heavy metals.
- Will not suffer from channeling or preferential pathways.
- Will consistently evacuate more than 95% of retained particles using 50% or less water than required of sand. (backwash duration 5 mins max at 45m/h).
- Has a minimum service lifespan of 15 years or more.

AFM® Certification: By Dryden Aqua

- ISO 9001 : 2015, ISO 14001 & 18001.
- NFS 50 & 61 for potable water use.
- DWI EC Regulation 31 certification for potable water use.
- European Water Directive (98/83/EC & 80/778/EEC) compliant.
- HACCP Certified for agriculture, food and drinks markets.
- BSEN12902 and BSEN12904 compliant.
- Independently tested by accredited laboratory, IFTS (Institute of Filtration and Techniques of Separation) according to EC ETV (Environmental Testing Verification) program. Found to give vastly superior performance in filtration and backwash than any other product tested.



NSF/ANSI 50 & 61 61