



Keeping the water Crystal Clear through AFM™ Active Filter Media



We have been very pleased with AFM and it is proving to be a cost-effective, reliable and high performance system.

John Anderson, Leisuredrome's Operations Manager



Leisuredrome is a leisure centre in Bishopbriggs, on the outskirts of Glasgow, run by East Dunbartonshire Council. The swimming pool complex is one of the most frequently used in Scotland with up to 1200 visitors every day.

The 25-metre pool is more than 30 years old and recently underwent a complete refurbishment. The refurbishment provided the

opportunity for Leisuredrome to look into an alternative filtration system and in particular, a filter media that had a longer life than sand, which needs to be replaced every 4-5 years. Using a product from highly processed glass called Active Filter Media AFM, **SP Filtration** installed a new filtration system at the pool, and the results to date in terms of cost savings, filter performance and enhanced public enjoyment are outstanding.

• Cost savings

• Lifecycle payback has been found after 12 months of use of AFM - cost savings amount to approximately £600 per tonne for every year the filter media is used in the filtration system.

• Using AFM is a proven cost-effective alternative to sand that requires minimum cleaning or replacement, thereby reducing maintenance costs for filtration systems.

• Each filter uses approximately 25m³ of water during backwashing, with each m³ of water costing approximately £6. Using sand in a pool filtration system would

require backwashing every week, sometimes twice a week. However, using AFM reduces this backwashing to every 10-14 days. Therefore cost savings using AFM are significant in terms of water used and discharged.

• Performance benefits

• AFM demonstrates reduced clogging with bacterial media therefore the need for increased backwashing to dislodge the matter is reduced. This leads to lower use of energy and chemicals.

• Less water used in backwashing means that less water needs to be heated back up to the temperature of the pool.

• Because AFM reduces levels of bacteria and fungi, it will lessen public health risks.

• Lower levels of chlorine lead to a reduced odour and a more pleasant and safer environment for swimmers.

• Environmental benefits

• AFM is derived from recycled glass bottles. The rigorous processing and quality assurance and activation ensures not only consistent quality but also represents a sustainable use for the material.

• The environmental impact of sand extraction is reduced.

“AFM is a unique Activated Filtration Media, ”

What is AFM?

AFM is Europe's only commercially available activated glass filter media, which has been developed by Dryden Aqua Limited in conjunction with Scottish Water, Midlothian Enterprise Board, and the European Commission Life-Environment Fund. Its effectiveness for use as a filtration media in a variety of different applications has been tested and impressive results have been achieved. In particular, AFM actively resists bacterial development within the filter bed, a process known as biofouling, which is a common problem with sand filters causing worm-hole channelling, crypto and bacteria bio-hazard as well as chlorine by-products.

This active resistance to bacterial growth is a significant benefit in swimming pool filtration in view of the improved cleanliness of the pool, which ultimately has an impact on public health, as well as a reduced maintenance and stress corrosion cracking of the building.

Key benefits

One of the major advantages Leisuredrome saw in using AFM instead of sand was the lifetime cost saving. AFM will last for the life of the filter unlike traditional sand, which is replaced every 4-5 years. Therefore the costs of replacing the filtration media and subsequent disposal to landfill are reduced. Similarly, as the use of AFM reduces the bacterial build-up in the filter bed less chlorine is required, on average 50% less and approximately 80% less water is used in cleaning AFM. Overall, the cost savings are huge, usually providing a return in capital expenditure in under 18 months.

East Dunbartonshire Council were also very keen to use AFM as part of fulfilling their environmental responsibilities and to help demonstrate a closing of the recycling loop.

The swimming pool uses 36 tonnes of AFM in its four filtration systems, which has led to annual savings of approximately £25,000. Since reopening, pool users have praised the clearer water, the lack of odour and reduced chlorine irritation in the eyes.

Lifecycle payback has been found after 18 months of use of AFM

Comments:

John Anderson, Leisuredrome's
Operations Manager

“Using AFM at the pool has been very successful. We were very interested when we first heard about AFM because of the benefits it offered in terms of reduced bacterial build-up and costs savings as well as it being a recycled product. Although the cost of AFM is higher than traditional sand, the savings made in the long run will more than outweigh these. Also, because of the lack of biofouling, we do not need to clean the filters as often. In fact, we have reduced the amount of water required for cleaning to less than half the usual amount.

“We have been very pleased with AFM and it is proving to be a cost-effective, reliable and high performance system. We have also had very positive feedback from users who have noticed that the odour is reduced and the water is crystal clear.”

Further Information and supplies of AFM from Dryden Aqua or your local dealer

Your Local supplier

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