



2H Water Technologies

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WHY UPGRADE TO BIODEK? Improved Operational Efficiency, Increased Treatment Capacity, Guaranteed ROI

Wastewater treatment needs are constantly changing – and that can be an expensive problem for plants using rock or random media Trickling Filters which can't be upgraded but must be replaced when there's a change in demand.

There is a simple and cost-effective solution: the **BIOdek** range of plastic structured media which offers a more productive, energy-efficient and cost-effective alternative to mineral/rock or expensive random media.

Biodek is a proven, and environmentally-friendly route to improved operational efficiency and increased treatment capacity. BIOdek is suitable for use in almost any installation, for almost any wastewater treatment application. We can replace even older rock filter installations, which tend to be shallow, with BIOdek plastic media.

An Investment in the Future

Unlike rock or random media, investing in BIOdek **guarantees long-term ROI**. Unlike Trickling Filters built from rock or random media, a BIOdek installation **extends the working life of an existing asset** as it can be modified to cope with any change in requirement, load or demand with minimal disruption to operational productivity. As treatment needs evolve, you don't have the inconvenience and expense of ripping out and replacing an entire installation. Instead, you replace, change or upgrade only those elements that are failing to meet consents or simply not meeting your operational objectives.

 Visit: www.2hwatertechnologies.co.uk

NEWS FLASH



Thames Water Replaces Rock with BIOdek

A successful upgrade at three wastewater treatment plants is helping Thames Water meet the combined challenge of increasingly demanding consents and a fast growing population. As part of the project, 2H supplied BIOdek plastic media to replace the existing rock media used in Trickling Filters at two of the plants, Stratfield Mortimer and Broadwell.



ASK THE EXPERT

Q "We have a rock media biofilter that isn't delivering. It's an old installation and the tanks are quite deep but narrow. We want to upgrade but we need the project to be completed quickly and economically. What would you suggest?"

A We've talked to many customers who've delayed making essential changes because they're worried the process will be complicated, time consuming and expensive. With a commodity wastewater treatment product, the lack of flexibility and 'me-too' approach could very well result in delays, expense and disappointing results. Not so with 2H Water Technologies. We've developed a flexible manufacturing approach that gives us the flexibility to custom build modules to suit the technical specification of any application as well as the available space on site.

Visit our website to find out more about 'THE PROCESS'



BIOdek structured cross flow media
high level purity from a compact process

PLASdek & SANIPACKING fill pack
efficient air/water interaction

TUBEdek interlocking plastic tubing
Lamella system for solids/liquids separation

GEOdek & GEOdek LITE modules
effective stormwater storage & attenuation

Smart Thinking Solves a Logistical Challenge

Water Company Replaces PVC Random Media with BIOdek

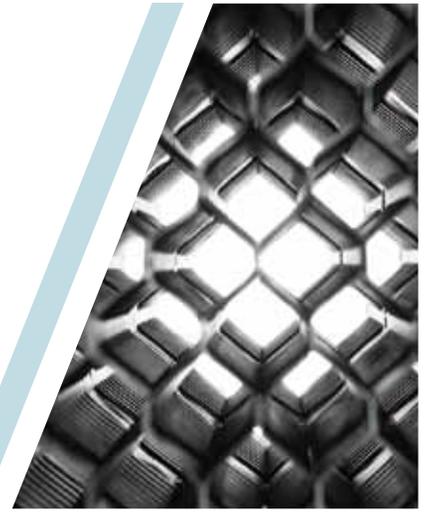
Logistics are an important element in any upgrade project – and it's often the logistical complications that can delay completion and, in the worse cases, have a negative impact on plant operation and productivity.

2H Water Technologies encountered a logistical challenge when called in to upgrade a carbonaceous biofilter at a plant which treated brewery and municipal wastewater. The biofilter was one of a pair, both of which had originally been fitted with PVC random media. After several years in continual operation, the random media, which was constructed from PVC-based corrugated tubes, was found to be heavily blinded by old biomass and solids.

The water company chose to upgrade the filters individually in two separate projects. For the first project, 2H Water Technologies supplied and installed BIOdek structured plastic media. When it came to upgrading the remaining tower, 2H was given a wider brief which included the removal and disposal of the existing PVC random media in addition to manufacturing and installing BIOdek structured, plastic media.

Removing and replacing the media proved problematic. 2H found that the roof, which is usually the most obvious access point, couldn't be removed without potentially undermining the structural integrity of the tanks. Experience - and a little lateral thinking – helped 2H devise a novel solution which involved removing the tank's side panels to allow access and using a vacuum system to extract the media.

The PVC random media didn't go to waste. Following extraction, 2H transported the random media to a local recycling centre where it was processed into pellets which would be re-used in the production of new PVC products.



Visit our website to find out more about other recent **PROJECTS**

 [Visit: 2hwatertechnologies.co.uk](http://www.2hwatertechnologies.co.uk)

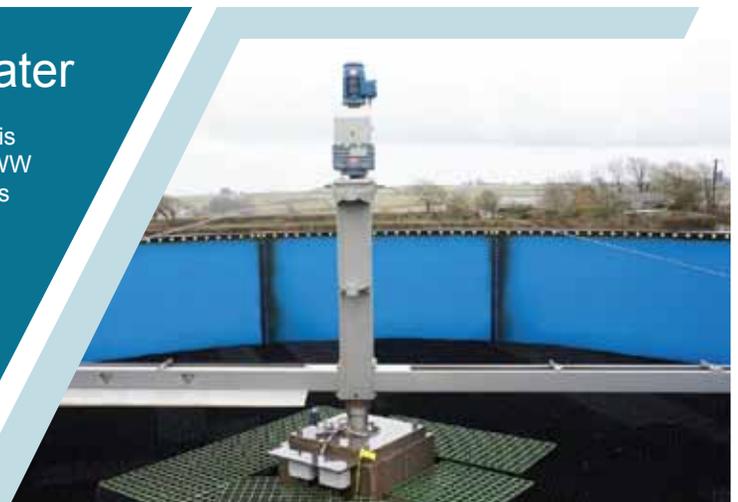


DOWNLOAD YOUR EQUIFLO BROCHURE NOW
www.2hwatertechnologies.co.uk/rotary-distributor-brochure

Equipflo Excels at South West Water

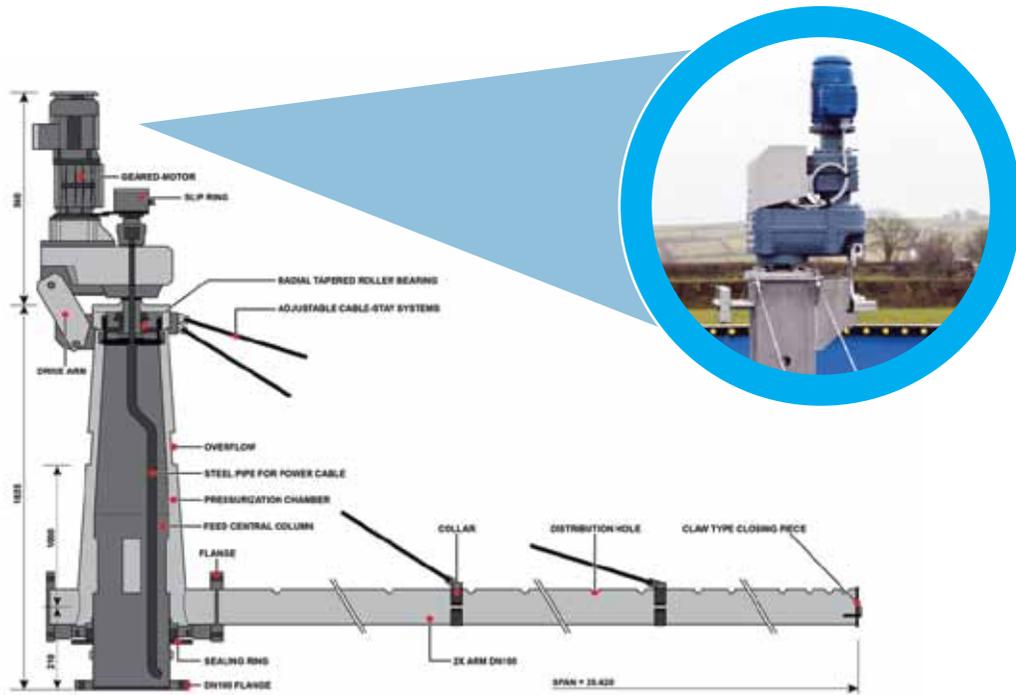
The recently launched Equipflo variable speed Rotary Distributor is being put through its paces in its first municipal installation at SWW Woolserly wastewater treatment plant. The Rotary Distributor was part of a 2H Water Technologies solution commissioned by Interserve Construction, primary contractors charged with building a nitrifying filter specified by consultants, Pell Frischmann, at the Woolserly WWT plant. Following consultation with Interserve and SWW, 2H designed, manufactured and installed 272m³ BIOdek KFP619 cross flow plastic media and a customised Equipflo variable speed Rotary Distributor.

 Visit our website to find out more about other recent **PROJECTS**: www.2hwatertechnologies.co.uk



Equiflo Rotary Distributor key features and benefits

...a precisely engineered combination of products and technology...



FEATURE	BENEFIT
Drive motor mounted on top of distributor	Motor is mounted above the wetted area of the filter so remains dry and free from problems
Drive motor is direct drive	No requirement for air service or belt drive system
Drive motor automatic disengage	Disengage system for motor failure is a simple mechanical by-pass
Splash Plate application	Creates a curtain effect to ensure all the media contributes to the process
Proof of curtain effect	Pan test as part of final installation set up
Adjustable plate installation	Simplifies the civil requirement and accurate distributor levelling
Open Trough Arms	Not prone to blockage like tubular arms with nozzles
Manufactured in Stainless Steel	Ensures distributor life is minimum 25 years
Top mounted main bearing	Allows changing with just support from the distributor support column
Motor Removing Davit	The removable davit lifts motor and lowers to ground without a crane

Technical Specifications

- Max. Flow: 5 to 4000 m³/h depending on model
- Span: 2000 to 50000 mm depending on model
- Flow: Fixed or variable
- Number of arms: 2 to 8
- Fastening: Flange on central post or hang-up
- Supply: From the bottom, from the top or both
- Speed: Adjustable
- Drive: Hydrostatic pressure or motorised
- Material: 304L, 316L or mixed

Why Choose BIOdek?

Improved Operational Efficiency, Increased Treatment Capacity, Guaranteed ROI

Designed and Built to Be Better

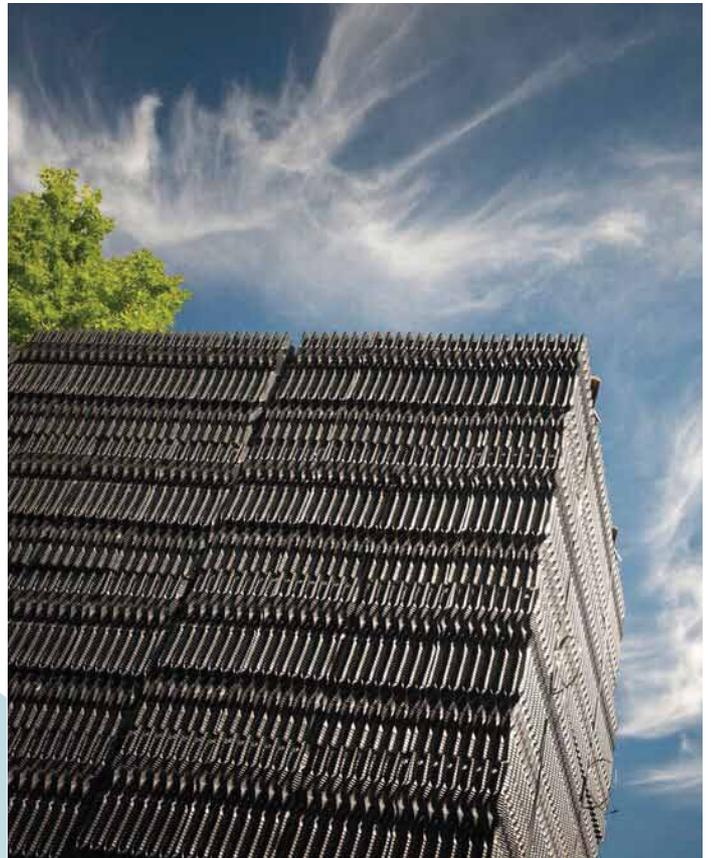
BIOdek offers a more efficient processing medium than mineral (rock/blast furnace slag beds) or expensive random media because plastic, structured, cross-flow media provides more treatment capacity. Replacing mineral/rock or random media with BIOdek will enable a Trickling Filter to handle up to three times the organic load and up to 10 times more hydraulic flow.

The BIOdek Difference

BIOdek structured plastic media can be used to construct strong and adaptable bespoke filters because the media is designed and built to be robust, flexible and adaptable.

BIOdek media has:

- a more open structure than rock or random media
- provides more surface area for biomass attachment than mineral or random media
- has 2-3 times more effective surface area than rock
- has ribbed, vertical tubes which not only offers high mechanical strength but also further minimises the potential for blockage



Thinking of refurbishing, replacing or installing new wastewater treatment plant?

Call 2H today **+44 (0) 845 0039 114** to discuss your requirements. We'll be there to advise you every step of the way - from design to installation - to a cost-effective bespoke application that delivers immediate results.



Visit: www.2hwatertechnologies.co.uk



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