

Low energy solution to improve wastewater treatment



Northampton, UK 15th July, 2011 - GEA 2H Water Technologies Ltd, wastewater treatment equipment contractors, deliver an extremely low energy, cost effective package for Wessex Water.

When the load increased and the consent levels tightened at a municipal sewage treatment works of Wessex Water, GEA 2H's operational process knowledge design and construction experience in industrial and municipal treatment plant provided a trickling filter solution that was extremely cost effective.

For replacement sewage plant projects, low energy consumption and cost effectiveness are key when selecting biological wastewater treatment systems. The structured cross flow and vertical flow plastic media design of the GEA 2H BIOdek™ range means biological wastewater treatment is simple to operate and requires low levels of energy, supervision and capital expense.

The works had used a combination of stone and modular plastic media for its secondary treatment and it was decided that the on-site performance of the plastic media made it suitable for use in the new, deep bed trickling filter. The extra treatment capacity provided by plastic structured cross flow media means that BIOdek™ trickling filters are a more efficient processing medium than traditional methods such as mineral media (rock/blast furnace slag beds) or plant requiring expensive random media. This is because the overall available surface area can be larger and is designed specifically to maximize processing efficiency.

As this was to be a combined trickling filter system to give both a BOD and Ammonia consent from a single unit, GEA 2H's BIOdek™ 190.60 (150m²/m³) plastic structured media was specified. For Trickling Filter installations BIOdek™'s open, uniform structure and high effective surface area greatly supports organic and hydraulic loading rates.

The versatility of the BIOdek™ media produced a design for a filter 16.2 m in diameter with media packed to a depth of 5.1m. This enabled the new filter to be constructed on an old 25mtr diameter trickling filter base, reducing civil costs and speeding up the project programme.

Richard Manning, MD GEA 2H commented *"With 25 years filter design and operational experience, GEA 2H can offer process design support to ensure compliance with effluent discharge standards, economic benefit and operational reliability."*

Learn more about our Design Service: gea-2h.co.uk/contact-us/design-advice
More information on Wastewater Treatment: gea-2h.co.uk/wastewater-treatment
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GEA 2H Water Technologies Ltd (GEA 2H) is the UK's leading manufacturer of plastic media for water management plant. Its applications are for utilities, such as electricity generation, water supply and waste water; general industrial water cooling and commercial and domestic storm water control and attenuation. GEA 2H sell direct and indirectly via agents and builders merchants and work closely with specifiers, architects and civil engineers in the design and installation of a wide range of industrial projects.

During its 30 years in business, GEA 2H has built an outstanding reputation for quality products and services. GEA 2H comprises the former Environmental Control Division of Munters, Ranik and 2H Aqua operations. GEA 2H supports customers in the UK, Eire and Middle Eastern countries.

GEA 2H Water Technologies Ltd is part of the GEA Group AG, one of the largest suppliers of process technology and components for the food and energy industries. As an international technology group, the Company focuses on sophisticated production processes. In 2010, GEA generated consolidated revenues in excess of EUR 4.4 billion, 70 percent of which came from the food and energy sectors, which are long-term growth industries. The group employed about 23,000 people worldwide as of March 31, 2011. GEA Group is a market and technology leader in its business areas. It is listed in Germany's MDAX stock index (G1A, WKN 660 200).