

Case Study

WARDEN BIOMEDIA CHOSEN FOR NEW PUB/RESTAURANT WASTEWATER TREATMENT PLANT AT WAKEFIELD

A 'high end' pub/restaurant in Wakefield was experiencing problems with its existing package treatment system which was failing to achieve the effluent quality standards set by the EA and it was reported that a complaint was launched by a local farmer to the Environment Agency for polluting the farmer's pond. The business was desperate to identify a satisfactory low-cost solution to their effluent treatment problems.

C&L Fabrication Ltd was contracted to complete the project and supplied its CLF14 Matrix sewage treatment system designed to reduce ammonia levels in the final effluent to less than 10mg/litre. Bioball, from the Warden Biomedica random filter media range, was selected for use in the sewage treatment plant to provide ultra-efficient and cost-effective aerobic treatment.

The excellent ventilation and high voidage performance of the Warden Bioball media make them extremely effective in wastewater treatment applications. They are injection-moulded in polypropylene with specific design features to increase the efficiency of the biological process. Triangular fins increase the total surface area and encourage the formation of the biological films of bacteria, protozoa and fungi which will eat and biologically break down the organic content. The design also ensures high voidage to prevent blocking that might otherwise slow down the process. The serrated edges of the fins enable them to interlock in the filter bed giving excellent mechanical strength.

With these purpose-designed features the Bioball media in the Warden Biomedica range are an excellent alternative to traditional mineral-based media and are perfect for overcoming problems of overloading in established aerobic treatment units.

Tim Cumming, Director at C&L Fabrication said, **"The installation of Bioball from Warden Biomedica range has virtually eliminated the concerns of our wastewater treatment plant efficiency and are also very cost-effective and long-lasting."**

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Results Achieved

| | Consent limit Set by EA | Result Achieved |
|---------------------------------|-------------------------|-----------------|
| BOD (Biochemical Oxygen Demand) | 20 | 6 |
| Solids (suspended at 105C) | 30 | 6 |
| Ammonia | 10 | 1.46 |



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