WWTP FINHAM

COVENTRY, GREAT BRITAIN

WHY DID THEY UPGRADE THE WWTP?

The Finham WWTP needed to adapt to the increase of population equivalent (430,000PE->490,000PE) and its' associated loads, as well as to the stringent discharge conditions regarding ammonium nitrogen. Furthermore, the outdated equipment on duty is to be retrofitted.

WHY JÄGER UMWELT-TECHNIK?

With the IFAS system, Jäger Umwelt-Technik offers a simple system for extending the sewage treatment plant where no structural changes to the existing aeration tanks or new construction of further tanks are necessary. This significantly optimizes the investment costs as well as the required activities at the plant. The modular design also allows a very flexible installation during the ongoing operation. The JetFlex aerators of Jäger Umwelt-Technik are used worldwide for decades and are continuously optimized for operational safety, durability and highest efficiency. This minimizes operating expenses which are primarily caused by aeration. The supplied Jäger piping system eventually facilitates a fast, simple, safe and cost-effective on-site installation. Overall, the solution provided by Jäger offers the lowest investment and operating costs.

WHICH RESULTS ARE ACHIEVED WITH IFAS AND DIFFUSERS?

The expansion with Cleartec Biotextiles and JetFlex aerators showed after only a short time that an increase in performance and efficiency in terms of biological degradation rate and energy consumption is possible without expanding the existing tank volumes. Apart from being a robust technology, the combined system by Jäger Umwelt-Technik is characterized by cost-effective installation and operation with high service reliability.

WWTP DATA

Type of WWTP
Municipal

Capacity
490.000 PE (115.000m³/d DWF)

Biological Stage
12 Lanes (each 4.660m³):
anoxic Zone (each 512m³)
aerated Zone (each 4.148m³)

Operation
Aerobic

Treatment
Nitrification
Partial Denitrification

Installation
168 Modules with Cleartec Biotextile
10.848 pcs. Tube diffuser TD65-2-90-750
1.728 pcs. Tube diffuser TD65-2-90-1000

Parameter	Inlet	Outlet	Legal Limits
BOD_5	254	5	15
SS	331	-	20
NH_3-N	41	1,5	3
TP	9	-	0,22
Ortho-P	5	-	0,22

Table 1: Inlet and outlet concentration after installation and legal limits in mg/l