

Municipal Wastewater Band Screening

Anglian Water, Colchester, United Kingdom

How we created value

- The effectiveness of Ovivo's Total Capture CF200 band screens saved its client two full man-days per week
- Weekly repairs have been replaced by twice-yearly maintenance
- Reduced cleaning and tankering costs reduced Anglian Water's operating costs further



Ovivo screening technology shrinks maintenance costs for Anglian Water, England's largest water authority.

Background

Anglian Water is the largest water and wastewater company in England and Wales, providing services to more than five million domestic and commercial customers in eastern England. Escalator screens were in operation filtering influent at its Colchester wastewater works. Serving the driest area in England, Anglian prioritizes water efficiency, so the problems created by debris carrying over the screens and by the intensive weekly repairs that the escalator screens required had to be addressed.

Process

Anglian Water installed Ovivo Total Capture CF200 Band Screens. Wastewater enters the center of the fine screen and flows outwards beyond the screen chamber through a continuously moving band of polyurethane mesh panels. Screenings are retained on the inside of the screen panels and are then discharged when the panels elevate to deck level. There they

are cleaned by low-pressure water jets. The jets clean the panels continuously as they pass the discharge point above the debris hopper.

Because CF200 screens draw effluent through their centers, they ending the traditional problem of 'carry over'. Whereas the former escalator screens generated two skips full of screenings each week, the CF200 Band Screens have more than doubled this amount. Tested at the National Screens Evaluation Facility (NSEF), Ovivo's CF200 screen achieved an impressive 80% average capture ratio.

Performance

Ovivo's Total Capture CF200 Band Screens have significantly reduced maintenance costs for Anglian Water at Colchester Sewage Treatment Works. Weekly repairs have been replaced by preventative maintenance that is now only required every six months.

A spokesperson for Anglian Water commented: "This investment has given us cost savings of two full

man-days per week. Previously, we had a major maintenance operation that not only included the headworks, but also the downstream equipment. Baffles on detritors had to be de-ragged. The bar screens after the primary settlement tanks also had to be cleaned every day – and we had to unblock and de-rag the sludge ram pumps and valves".

He added: "The cost saving on man-hours alone is very significant, but even that doesn't include the amount we are no longer having to spend on additional cleaning and tankering. Since the CF200 Band Screens have been installed, we've actually removed the old bar screens on the primary settlement tanks. We are very pleased with the results".

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