WARDEN WORKS WITH THE LARGEST NORWEGIAN OWNED WATER TREATMENT COMPANY

Sterner AS is the largest Norwegian owned water treatment company who focus on aquaculture and RAS (Recirculation Aquaculture System) technology for fish farming. During the last year Sterner AS has built and completed an onshore RAS based fish farm plant for their customer Eidesvik Settesfisk AS.

The RAS plant consists of fish breeding tanks (2 x Ø15 m - each with a water volume of 780 m³), a water treatment system, a feeding system, an energy system for temperature control and a plant for the treatment and handling of sludge. The water treatment system consists of the following treatment processes: Two-step particle separation, biological MBBR process (for removal of TAN) and two-step CO2-removal.

Bioflo was selected because Sterner AS wanted to reduce the MBBR volume by replacing carriers with specific surface area of 650 m²/m³. From Warden’s wide range of filter media, Bioflo was the most suitable with a protected surface area of 800 m²/m³.

Sterner AS used the 10.5mm width Bioflo media to optimise TAN oxidation to NO3-N (nitrification). Nitrifying biofilms are thin, and the bacteria grow slowly, so the risk for media clogging is low. Having a high protected surface area is favourable, so high biomass concentration is ensured.

Sterner AS and its client, Eidesvik Settefisk AS are pleased with the results. Sverre H. Amrani, Sterner AS Technical Sales Manager; “Selecting the right media is never an easy task. With Warden’s extensive knowledge of and expertise in filter media, we were able to select the most appropriate media for this plant. With their help we have been able to meet our targets.”

About Bioflo

Bioflo is a durable, rugged and highly efficient media designed to provide a large protected surface area for the biofilm and optimal conditions for bacteria culture growth. Bioflo’s large openings allow for wastewater to pass freely through the media which helps maintain a healthy and thin biofilm. Bioflo is an ideal biofilm growth media for biological reactor technologies such as; MBBR (Moving Bed Biofilm Reactor), IFAS (Integrated Fixed-Film Activated Sludge) and RAS (Recirculation Aquaculture System).
The large protected surface increases the total biomass concentration and will therefore, compared to other conventional filter media, reduce the necessary MBBR tank volume – thereby lowering civil and excavation costs.