



INDUSTRIAL SEMICONDUCTOR PLANT

Aeration Rental

A cutting-edge WWTP treating the effluent from a semiconductor factory with pre-treatment processes of separation, metal recycling and MBR for removing organic materials. The plant's aerobic reactor used fixed-to-the-floor disc diffusers which began to breakdown, causing problems with the biological process and the efficiency of the nitrogen removal. In order to repair the disc diffusers, the reactor had to be drained, a process which requires synchronization with the production plant to reduce the factory's wastewater during the maintenance period. This time consuming process called for a temporary solution.

Challenge

To urgently supply additional oxygen to the aerobic reactor without interfering with the existing treatment process.

Solution

The client hired two Floating Fine Bubble Aeration units. The floating units were installed just above the existing fixed-to-the-floor diffusers. Mapal also provided a specialized manifold that connected to the existing air feeding pipe, eliminating the need to supply a new blower.

Results

Mapal's rental aeration system was supplied to the client within seven days, and was installed and operating within two days. Following the installation, the wastewater process performance improved and the nitrogen removal returned to its expected values. Installation was completed without draining the reactor, providing the factory with consistent production. Following the project's success, the client purchased two additional floating aeration units in case of further problems with their fixed-to-the-floor diffusers.