

Nikuni KTM Microbubble Pump Solves MBR Issue at Ontario Cheese Factory

(March 4, 2019) –An Ottawa area Waste Treatment OEM installed a treatment system at a cheese factory near Belleville, Ontario, but were having some issues with the Membrane Bio-Reactor portion of the system. Fats and Oils were causing problems with the reaction in the MBR. The OEM decided addition of a Dissolved Air Flotation (DAF) System would be needed to help remove the fats and oils before the effluent reached the Bio-Reactor. In order to keep the design simple, they worked with Connecticut based Ober-Read & Associates to select a Nikuni KTM series pump to provide the constant stream of microbubbles to the system. Most DAF systems utilize a pump, compressor, a mixing tank, and often a static in-line mixer to produce the microbubbles. The goal was to keep the system as simple and fool-proof as possible, and the Nikuni pump solved that challenge.

The Nikuni KTM uses a small injection nozzle directly into the suction of the pump, and does not require compressed air or any large air-mixing vessel downstream of the pump. The nozzle uses a venture effect to pull air into the pump, where it is thoroughly mixed to produce bubbles between 4 and 18 microns. The bubbles float the fats and oils to the surface of the DAF tank where they can be easily removed from the surface, leaving a clean water stream to feed to the Membrane Bio Reactor.

The plant has been operating for nearly a year with this system, and it is working well. Once installed, the pump and air nozzle does not require any adjustment to provide a reliable stream of dense microbubbles.

About Nikuni America

Nikuni America, based out of Mt Prospect, Illinois, provides customers in North, Central and South America with pump and filtration solutions in water treatment, machine tool and industrial markets. Nikuni has headquarters in Kawasaki, Japan with manufacturing in Yamagata, Japan.

About Ober-Read & Associates

Ober-Read & Associates is a 68 year old Manufacturers Representative company based in Branford, Connecticut that provides pump and air transfer solutions in OEM applications including medical, semiconductor, industrial and water treatment markets.

