

Tecomet, headquartered in Wilmington, MA specializes in the manufacture of titanium medical implants, instruments, aerospace and defense products. Tecomet's manufacturing facility has a vibratory deburring operation that generates an oily wastewater stream containing very fine solids. They needed a solution to remove the suspended solids, the free-floating oil and the chemically emulsified oil prior to effluent discharge. The vibratory deburring operation had an existing centrifuge that was removing solids from the deburring operation. However, excessive levels of fine solids and oil remained in the wastewater which prohibited them from discharging into the sewer.



Tecomet is an environmentally aware and socially conscience company that wanted to address the oily wastewater issue with a very dependable and reliable technology. Tecomet purchased a Sanborn UFV-750T Ultrafiltration System capable of processing up to 750 GPD of vibratory deburring oily wastewater.



Process Description: The vibratory deburring wastewater is first processed through an automated self-discharging centrifuge system where the centrate is directed to the UF equalization/collection tank. The wastewater is then pumped to the Sanborn UFV-750T System on a level-controlled, on-demand basis to top off the UF Working Tank via an SOS Coalescer for oil/water separation. The wastewater is then pumped through the tubular UF membrane modules at a high cross flow rate for the separation and removal of emulsified oil and TSS. The UF permeate generated by the UFV-750T is then directed into the sewer for effluent discharge.

Shortly after, Tecomet added a Sanborn LiquaPac HS RCS-30 Centrifuge system to continuously remove fine solids that were being concentrated by the UF system causing the wastewater to become viscous. The RCS-30 removed the fine concentrated solids to increase flux, extend the UF process cycles, and minimize downtime for UF membrane cleanings. Periodically, the captured fine solids are removed from the centrifuge liner as a solid mass for disposal purposes.

Sanborn UF Systems are designed for oily wastewater recycling and disposal applications and for the ease of operation and maintenance in harsh metal working environments. They are equipped with Tubular UF Membrane modules, sealless vertical centrifugal pumps and robust control systems to minimize system maintenance and downtime.

Call Sanborn Technologies today at 508-660-9150 and our engineering staff will assist you in finding the perfect recycling system designed for metal working fluids, coolants, vibratory deburring, parts washer solutions and a variety of wastewater treatment technology.