

EVALUATING FOOD PROCESSING PLANT WATER USE LEADS TO INCREASED ROI

ABOUT JTM PROVISIONS COMPANY, INC. JTM is a multi-million dollar, multi-faceted food processing company that was founded in 1960 originally as a butcher shop named Maas Brothers. In 1980, the company was renamed to JTM Food Group to reflect the continued growth of the business. Today, the national company is still rooted in the same principles of the original butcher shop—quality and value. JTM, which claims to serve about half of U.S. schools, provides products to more than 13 million K-12 students at 7,000-plus school districts nationwide. JTM offers more than 150 menu items and delivers a variety of finished food products. Beyond schools, the company targets kitchens in the healthcare and military markets, and looks to work with co-manufacturers and retailers calling for slim-down meal alternatives.

THE CHALLENGE. JTM needed to find a way to reduce the strength of the wastewater discharged at its facility. The company's cooking operation was identified as a main source of "upstream" wastewater generation, while the "downstream" waste was generated by the organic load of the water discharged to the municipal waste recovery facility. A feasibility study needed to evaluate reduction of the strength of the wastewater discharged from JTM's facility. JTM partnered with CIFT for a one year project in collaboration with the Dale A. Seiberling Food Engineering Laboratory at The Ohio State University (OSU). Additionally, the Department of Food Science & Technology at OSU teamed with Membrane Specialists (Hamilton, Ohio) in an effort to find new and innovative applications for membrane technology in the food industry.

MEP CENTER'S ROLE. The work completed through this feasibility study and evaluations show that both reclamation of water from the food grade process, and the implementation of a Ultra-Filtration (UF) concentration operation at the end of the pipe, have the ability to reduce total suspended solids, BOD, and COD discharged from JTM's facility. Economic analyses performed by Membrane Specialists showed a three-year ROI on the installation of a membrane filtration unit at JTM's facility. The learnings from this project have the potential to be applied to any processing facility with an extremely high biochemical oxygen demand load in their effluent.

"The MEP program is a critical factor in the success of manufacturing in Ohio. CIFT's leadership has benefitted food manufacturers throughout the state."

-Joe Maas, President

RESULTS



440 new or retained jobs



\$800,000 in new investment



\$600,000 in new products

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