



Case Study: Samsco



Water Evaporator Eliminates Expensive Hauling Costs

Established in 1987, Ravenna Aluminum Foundries (Ravenna, OH) has produced more than 20 million castings for customers in a variety of industries. Each piece has been manufactured with the quality and attention to detail that has built the reputation of the FSI Group (Foundry Systems International).

The Challenge

During the manufacturing process, wastewater is generated from parts washing, floor scrubbing and spent coolant. The annual volume of wastewater had grown over the years to about 80,000 gallons. When the volume was relatively small, hauling the wastewater was the most cost effective option, but as the wastewater volume grew and hauling costs escalated to over \$50,000 per year, Ravenna Aluminum began to look for lower-cost options.

The Solution

Ravenna Aluminum had been purchasing their cleaners and coolants through the same supplier for a number of years. When Ravenna's chemical supplier became aware of the volume of wastewater and associated hauling cost for cleaners, spent coolant and other waste streams, they suggested that Ravenna Aluminum consider an evaporator from Samsco Corporation (Goffstown, NH).

Ravenna Aluminum welcomed the opportunity to explore evaporation technology as a means of minimizing their wastewater and associated hauling cost. A Samsco application engineer worked with Ravenna Aluminum to obtain appropriate samples of the wastewater streams. Samsco performed a laboratory functional pilot test on the wastewater samples to determine their appropriateness for evaporation and to make the best recommendations for a successful installation.

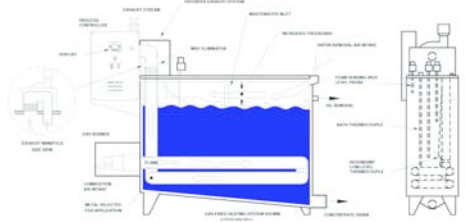
The functional pilot test determined that over 90 percent of the wastewater could be evaporated and that 316L stainless steel construction was appropriate for the application.

Ravenna Aluminum determined that installing the evaporator would save about \$45,000 per year in wastewater disposal costs and provide a six-month payback. Management approval of the project came quickly due to the thorough presentation that the Samsco engineer was able to make with the laboratory functional pilot test results to accurately predict the evaporator performance, the research on the cost of the equipment, operating and installation costs, and the excellent payback.

For more information on Samsco Corporation, call (603) 668-7111, e-mail Sales@Samsco.com or visit www.samsco.com.



Samsco Evaporator minimizes industrial wastewater.



Evaporator design provides high efficiency and ease of maintenance.

Images courtesy of Samsco Corporation.