

## CROCKERY TOWNSHIP

### PROJECT-AT-A-GLANCE

Duperon Internally Fed Drum Screen replaced two fine influent screens and flawlessly provided screening during a transitional period at a plant and required no maintenance.

**SITE:** *Crockery Township Wastewater Treatment Plant*

**EQUIPMENT:** *One (1) Internally Fed Drum Screen*

**INSTALLED:** *March 2021*



## DRUM ROLL: INSTALLING A NEW ROTARY SCREEN DURING A PLANT TRANSITION

Part of the Northwest Ottawa Water System (NOWS) in Michigan, the Crockery Township wastewater treatment plant was opened in 2006 to serve a newly built subdivision, which grew steadily in the intervening years. The membrane filtration (activated sludge) plant has been serving approximately 270 residential customers, processing an average of 40,000 gallons per day and discharging into the Grand River watershed.

In 2021, the decision was made to decommission the plant and pump the incoming wastewater to another plant in the NOWS system for treatment. During this transitional period, however, it was critical to keep the Crockery Township plant operating efficiently.

“Duperon was there at every step to make it work right.”

### THE CHALLENGE

Because it uses a membrane filtration process, the Crockery Township plant is highly susceptible to debris that can clog the membrane. To remove debris prior to treatment, the plant employed two static fine influent screens installed when the plant was built. However, these had reached the end of their service life and required frequent repairs as critical components wore out.

Ottawa County Department of Public Utilities Supervisor Joe Hebert notes that continuing to repair the screens was both costly and an inefficient use of staff time and resources—especially during a time of transition when staff had much to do.

“We had considered continuing on with the equipment that was in place, but the labor and cost required to maintain it proved unattractive for us at that time,” Hebert explains, noting that replacing the screens seemed like the best option.

## THE SOLUTION

Hebert partnered with Duperon to trial a new solution: the Duperon Internally Fed Drum Screen. The new 2mm screen continues the Duperon tradition of simple, effective design to help ensure maximum efficiency and uptime with minimum maintenance.

Throughout the installation process, the Duperon team worked closely with plant engineers, providing regular updates during construction and responsive support following installation to ensure the unit met expectations. "Duperon was there at every step to make it work right," Hebert says.

Once the unit was installed, it was found that the well water used to supply the drum screen occasionally clogged the drum screens nozzles with sediment from the well. Pre-filters were added to the water supply lines, which solved the issue.

## THE RESULTS

Hebert reports that, since its installation in March of 2021, the Duperon Internally Fed Drum Screen has operated continuously with zero downtime. The unit's lack of trunnion wheels and its water-lubricated bearing slides minimize component wear and maintenance requirements. Indeed, no maintenance was required or performed during the pilot.

He adds that the screen has proven highly effective. "The solids it removed were complete and it dewatered them nicely even before they left the screen. It did exactly what we needed to be done," Hebert says, noting that there were no blinding or stapling issues.

Just as important, the reliability of the drum screen has required no intervention from plant staff, enabling them to focus on essential activities during a busy time of transition.

"The new screen has worked flawlessly. It was a relief not to have any screen failures like our old ones had," Hebert says. "We really appreciate everything Duperon has done to get us to a point where we didn't have to worry about the screens working properly."

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## ABOUT DUPERON

*Duperon Corporation is the leader in innovative preliminary liquid/solids separation systems. For more than 35 years, Duperon has provided simple yet innovative solutions for a variety of screening and solids handling applications in the water and wastewater industry. Duperon technologies are designed and manufactured in Saginaw, Michigan.*