

EscaMax® Perforated Plate Screen

Case Study – Greenville WWTP, Greenville, TX.



Huber's EscaMax Gives Greenville a Clean Start at the Headworks

“The EscaMax® has definitely met our expectations. It is a simple machine that does a good job. I’m glad we got it.” Bill Erwin, Plant Supervisor

The City of Greenville’s Wastewater Reclamation Center had been operating in a “vintage 1953” facility and – despite a couple of upgrades – it was still behind peer facilities in the modernization of its equipment and processes. Just a few years ago, a new facility was built beside the existing facility. The old plant was demolished upon the new facility’s completion. Updates driven by new technologies and equipment greatly improved Greenville’s operations.

Making fact-based choices

Greenville researched industry standards in all areas and brought in those that best fit its operations. Screening technology for the facility headworks was one area where Supervisor Bill Erwin felt the facility could get big bang for their buck with a smart selection.

Greenville needed a screen solution that would:

- **Clean rags and other solids from headworks flow**
- **Provide durability and reliability**
- **Operate without significant management and maintenance**
- **Capture and separate waste for haul-off**

“Seeing what works and what doesn’t was an effective way to clearly envision how we should tool our plant and set up our processes. We asked lots of direct questions and got honest answers from the people who live with these products every day.”

Opportunity:

A new facility gave Greenville a clean slate on which they could implement the best of the plant technologies that they had observed.

Greenville quickly identified fine screens as their headworks screening choice. Fine screens produce a much cleaner flow than other types of screens such as bar screens and it was clear that most operators preferred the fine screens. In fact, most of Bill’s peers preferred Huber’s EscaMax fine screen.



“Many of these technologies are similar. I mean, it’s a pretty simple concept. For that reason, you have to look at other qualifiers to make the best choice. The EscaMax was, by far, the preferred fine screen because of its reputation of durability and reliability. It works and keeps working.”

Solution:

The Greenville Wastewater Reclamation Center had one goal: To make the flow of water coming into its treatment process rag and debris free.

And now – to reach that goal – the team would look to the EscaMax to do the job.

In the old facility, Bill’s team was constantly fighting rag balls so they could try to keep debris from damaging downstream equipment. In the new facility, EscaMax gives them the freedom to focus on more than the rag balls – and still have confidence that their downstream equipment is not in harm’s way. Instead of constantly fighting rag balls, they do three or four walk-by checks to make sure that rags aren’t hanging up or bridging and failing to move into the compactor. If they find a hang-up, they just wash it down without a problem.

The EscaMax gives them control over what gets in the stream whereas their previous process gave them no way to prevent rag balls from flowing into pumps and mixers and causing slowdowns and clogs.

“Everyone dreaded their turn at de-ragging the pump or cleaning the rags out of the mixers. The impact to the equipment is tremendously reduced because the bulky rags are just not there to cause the problems.”

Getting the rags out at the start

The concept of headworks fine screens is just common sense. After all, doesn't it make sense to separate out and discard undesirables from ever getting into your system?

The benefits of fine screens:

- You control what comes into the headworks.
- You start with a cleaner flow
- You reduce stress on downstream machines
- You reduce amount of management required for equipment
- You reduce debris within the facility
- You give your team time to focus on other operational needs

According to Mr. Erwin, the EscaMax keeps his team from dealing with the hassles, problems, repairs and slowdowns caused by rags and debris moving through the stream. The debris causes a chain-reaction that works its way through the process, wreaking havoc by causing clean-up and often downtime from breakdowns and repairs. These issues carry with them their own associated costs in man hours, lost production and consumption of repair budget.

Bonus effects of fine screening

Consider the new screens downstream protection. Taking the debris out at the beginning ensures that wear and tear is minimized to pumps, mixers – actually anything that beyond the headworks.

Helping to reduce loading in the plant. Practically eliminating solids and pushing a cleaner stream through the facility, reduces loading levels that are monitored for regulatory compliance.

Enjoying excellence in quality. Because of the EscaMax's simplicity and strength in its design and manufacturing materials it is incredibly durable and reliable. Greenville's team has watched as the EscaMax has been a workhorse for more than 16 months without a hitch.

Making a smelly process less smelly.

Greenville's new facility wish list included odor reduction. Because EscaMax removes some of the odor culprits (rags and debris) at the headworks, the task of creating less offensive

“You could smell the evidence of the old plant a half mile away! The new facility has put low odor processes in place and you can tell it. We will never be odor-free. This process is just inherently odiferous. But we have been successful in bringing that odor level down significantly.”

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odors is less daunting.

This flawless operation also means that Greenville’s team has had:

- No downtime from issues or repairs
- No need to make service requests
- No additional repair costs

The initial fine screen requirements that Greenville Wastewater Reclamation Center identified have been met by the EscaMax and it has helped them reach their original goal of minimizing rags and debris in its stream.

Experience counts

Huber’s experience with municipalities and with wastewater processes is extensive as is its knowledge of the technologies it provides. This industry-technology insight allows Huber to work with organizations to ensure that systems are geared to perfectly match up to immediate tactical challenges and long-term strategic goals.

CITY OF GREENVILLE WATER RECLAMATION CENTER

- ❖ **Location:** Greenville, Texas
 - ❖ **Website:** www.ci.greenville.tx.us
 - ❖ **Facilities:** 1
 - ❖ **EscaMax®Implementations:** 1
 - ❖ **City of Greenville, Texas handles 13 million gallons of pumpage per day**
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