

RoSF4 Coanda® Grit Washer

Case Study:

Isle La Plume WWTP, La Crosse, WI.



Huber's RoSF4 Coanda® Grit Washer Turns La Crosse's WWTP Grit into Green.

"We didn't realize that what we were doing was unique until we listened to comments made during tours of our facility regarding plant automation and the Green contributions we're making in our surrounding community." Jerod Greeno, Plant Superintendent.

La Crosse Wastewater wanted to make some improvements to their treatment processes to make their plant more efficient and effective. Because of the odor, hazardous nature, and sheer weight of the organics-laden grit, La Crosse's disposal fees were quite significant. Cleaning the grit would immediately reduce disposal costs, so La Crosse searched for a grit washing system that would easily integrate into their automated plant operations.

La Crosse chose Huber's RoSF 4 Coanda® Grit Washer because of its:

- High grade clean and dry end-product
- Capture and return to process organics
- Reliability and low maintenance
- Role in cost savings
- Easy integration and implementation

Challenges:

La Crosse's challenges revolved around the need for weight reduction. Annual cost to aggregate and haul off grit consumed a significant portion of the plant's budget. Because they could not properly clean the grit and separate the organics at pre-treatment, the plant team was left with a completely useless and rather odiferous and hazardous by-product.

“The reduction in grit quantity and weight is so significant that we no longer need a dedicated hauling person since our haul-off schedule has been reduced to one 7-yard dumpster every 5 weeks.”

La Crosse faced these facts:

1. Grit disposal cost totaled more than \$7530 in annual haul-off costs alone.
2. The odor and harmful fumes from the organics in the grit made it undesirable and costly to dispose of at the landfill.
3. The grit was not fit for re-use.

Solution:

Huber's RoSF 4 Coanda® Grit Washer was a technology fit for La Crosse's reduction goals and its sleek and efficient operation would integrate easily into La Crosse's plant automation.



La Crosse knew that the organics were the problem. The weight and quantity of the grit was compounded by its accompanying organics. By putting a process in place to wash the grit, the organics would be removed and its cost of disposal reduced by weight and hazardous materials rates. If organics could be subjected to removal and further treatment, both the grit and the resulting organic material could be turned into useful by-products and more easily and economically removed from the plant.

Easily integrated and operated

“The reliability of the units really minimizes our support needs, however, Huber’s knowledge of the industry and their technology - combined with their commitment to understanding the nuances of our environment - makes any request/response situations straightforward and simple.”

La Crosse installed two units, one of which is operational at all times. By rotating the units, the plant never runs their system without the grit washers in place and never suffers system downtime from unit maintenance.

Initial start-up required only “priming” the system with enough grit for processing and then adjusting the minimum levels to fit La Crosse’s preferences. Jared Greeno, La Crosse Wastewater Plant Superintendent, assesses the system as one that works flawlessly with little interference. Periodic gear box maintenance and oil changes are the only interruptions to the operation of one unit or the other.

Impressive metrics

The RoSF4 Coanda® units result in reductions that favorably impact budget line items.

Haul-off fees:

125 tons of grit at \$65 per yard = \$7530 per year

Reduced by 79% to

48 tons of grit at \$12.50 per yard = \$600 per year

No risk, no waste

The RoSF4 Coanda® system eliminates risk from the haul-off process and makes it much less equipment and labor intensive than the old-style Grit Screw system where they hauled materials to a dumping yard via a vat-dumping and load car system. The RoSF4 Coanda® system enables the organics removed from the grit to be delivered directly to their treatment process without human intervention – eliminating any potential splash or load car related mishaps.

“The RoSF4 COANDA® system leaves us with no waste. Both the grit and organics by-products are quite useful. In fact, the landfill actually wants our treated organics to use as cover and the grit is sandbox grade suitable for use in all sorts of landscaping applications.”



Sandbox grade grit is produced by the RoSF4 Coanda® system while it funnels the organics into a treatment process. The end-result is two useful – not harmful – by-products. The grit – once offensive and hazardous – is now a popular cover material used at the City’s landfill.

The dumping yard - abandoned after the old-style Grit Screw system years - has been turned into a bike trail connecting La Crosse’s two ends of town.



Quietly does its work

Because of its reliability and performance excellence, the RoSF4 Coanda® Grit Washer requires little attention from La Crosse’s maintenance staff.



<http://www.cityoflacrosse.org>

Facilities: 2

RoSF4 COANDA®
Grit Washer RoSF 4
Units: 2

Service Area:
City of La Crosse and several adjacent entities, including the City of Onalaska, the Town of Campbell, Sanitary Districts 1 and 2 in the Town of Shelby and the City of La Crescent.

The Wastewater Utility operates and maintains two wastewater treatment plants (the major plant is on Isle La Plume and a second, much smaller plant is on Barron Island), 26 sanitary lift (pumping) stations, and 188 miles of sanitary sewers that make up the wastewater collection and treatment systems that provide a water supply of 10.5 million gallons per day to 85,000 inhabitants. The Utility also operates and maintains seven lift stations and 134 miles of storm sewers.

The supporting cast

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.



Let us help you with your solution today.

Learn more about the **RoSF4 Coanda®** Grit Washer at Huberforum.net

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