

## RoFAS Sludge & Septage Acceptance

Case Study:

SAWS WWTP, San Antonio, TX



## Huber's Sludge Screens Help SAWS Receiving Stations Handle Deliveries

*“The units we’ve put in place are the basis for a new system that allows us to provide an attractive, convenient means for legal dumping at reasonable rates.”* Roland Gutierrez, SAWS O&M Engineer

The San Antonio Water System had been making a homemade screen system work. It wasn't perfect – but it only seemed to fall short in keeping grit from entering their system.

The search for the right technology to integrate into their existing septage receiving process began as one focused on simply finding a grit screening solution. Its potential quickly broadened as Roland and his team learned of complete units that provide mini-headworks for receiving stations. SAWS could replace the homemade screen system and get rid of their grit situation with a component that:

- **Treats and removes debris and grit in a contained process**
- **Saves wear and tear on pumps and wet well**
- **Speeds transfer time to just a few minutes**
- **Practically eliminates odors, pests and mess**

*“We’ve gone from homemade, dirty screens and long lines to clean, quick, practically hands-free automation. Companies that send their deliveries here are ecstatic. Even if you just calculate the time saved, it is tremendous because 5 minutes instead of 15 to 20 is money for them.”*



**Issues:**

As the SAWS team began using a demo sludge screening unit from a Huber competitor, they learned quite a bit about the solids that were coming into their receiving station. The very first truck that hooked up to the new demo unit took only minutes to clog it. Roland Gutierrez, SAWS O&M Engineer, didn’t think this was possible - until he examined what had come in from several portable units around the metro area. Roland found everything from knives, ammunition and power tools to clothing, syringes and electronic devices in the septage. Armed with these new details, Roland reassessed the plant’s needs and decided to implement three of Huber’s Ro 3 sludge screening units at their receiving station. Because it served from 75-80 trucks a day, the existing SAWS receiving station process caused long lines that frustrated drivers and cost their companies money in idle time. Any improvements SAWS could make to this station would be like cash in the hands of their customers.

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**Solution:**

The Ro 3 is a workhorse unit that provided the grit screening that SAWS was looking for while also removing debris and automating the transfer process for the delivery drivers.

Roland thought he was prepared for whatever septage his station might receive as his Ro 3 implementation was kicked off.

Maybe it was poor planning or just fate, but the first weekend of operation for the Ro 3 units at SAWS coincided with a city-wide celebration that included 3 parades attended by more than 1.5 million people. As the portable units that served these crowds were emptied and their contents delivered to the SAWS station, the Ro 3 units clogged. Huber came back in and worked with the SAWS team to tweak the Ro 3 units to handle the influx of solids, but the debris was just too overwhelming. After all, the Ro 3 units’ “specialty” is handling the original

*“Huber’s service, design and implementation teams were tremendous during this process which – honestly – became frustrating for both camps. But Huber was relentless in its investigation into what was and was not working and persistent in putting the best solution for our quite significant waste processing demands in place.”*

*“The RoFAS is robust and durable. It takes on the large debris like a champ. The Ro 3 is a great workhorse for our grit removal and lower level debris removal. The pairing of the two product specialties works well to accommodate SAWS’ screening needs.”*

culprit in the SAWS situation - grit.

Huber initially applied fixes to the system that could arm it for handling the significant solids throughput at the SAWS station. An inlet end spacer was installed to prevent materials from wrapping around the arm and a shield was added to cover the end of the first flight. A plate was added to deflect incoming screenings away from the rotating arm and bearing; and, finally, the service team modified and repaired the discharge end of the screw conveyor. The solids were *still* more than the modified Ro 3 units could handle.

### **Above and beyond typical debris and typical service**

Huber’s engineering team began to rethink the type of solution that SAWS should be using - given their new data. After closely examining the SAWS debris characteristics, Huber determined that its heftier screening solution – the RoFAS – would better process the potential types and volumes of debris that SAWS was receiving. Because the station receives septage from portable units used for civic and collegiate celebrations, construction sites, parks and sports complexes, there is the potential for sizable, hazardous and dangerous items to work their way into its facilities. This goes beyond what would be considered *typical* rags and debris within wastewater treatment processes.

Huber removed one of the Ro 3 units and put two RoFAS units in place. The RoFAS units handled the large debris like a champ – after all – that is the RoFAS’ engineered specialty. In fact, the RoFAS almost seems custom made to handle the portable unit “situation”.



The “hybrid” implementation of Ro 3 and RoFAS units that SAWS now has works well to separate large solids and grit from the septage that passes through the station. There are back-up units for both the Ro 3 and RoFAS on stand-by so

*“The way this happened is a huge rarity. In the 27 years I’ve been with the company, overseeing countless projects and working with many vendors, this is one in just a handful of occasions where a manufacturer’s service and support teams took it upon themselves to make it right when they knew expectations – whether ours or theirs – weren’t being met.”*



that SAWS is always online.

Huber’s sludge screening solutions help SAWS manage its delivery data using card readers and billing and tracking software that make it easier to understand delivery details, automate processes, and avoid issues with compliance. While totally changing the way SAWS station managers operate, Huber’s solutions have also made delivery of septage a completely different experience for SAWS customers.

The differences are game-changing because they provide:

- Vast reductions in delivery times from 15-20 minutes to less than 5 minutes per delivery
- Enormous improvements to safety and cleanliness through eliminating the handling of waste
- Critical tracking capabilities that support accountability to regulatory agency
- Automation to billing processes
- Effective measures to eliminate illegal dumping

Once the new screening units were in place, SAWS made other cosmetic improvements that contributed to the enhanced delivery experience.

#### **Durability, reliability and support**

Huber’s customer support is rock solid. The SAWS team can depend on immediate responses when they actually need answers or help. Huber’s support experts are available with assistance. When deeper expertise is required, Huber connects the best resources with the customer.

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.

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