

WSSC WATER IMPROVES SLUDGE SCREENING AND DIGESTER PERFORMANCE WITH HUBER STRAINPRESS®



BACKGROUND & CHALLENGES

WSSC Water, formerly known as Washington Suburban Sanitary Commission, was formed in 1918 to improve the waterways flowing through Washington DC. There were complaints that the water was being fouled by waste from Montgomery and Prince George's Counties in Maryland.

Today the service area spans nearly 1,000 square miles and serves 1.9 million residents with over 5,600 miles of sewer pipe. WSSC Water consists of six (6) Water Resource Recovery Facilities (WRRF), treating over 65 million gallons per day of wastewater within the Montgomery and Prince George's Counties.

WSSC, like many facilities, has trash such as rags, plastics, etc. that fill their digesters, decreasing their capacity and mechanically interfere and degrade their pumps, valves and other processes. In addition, their biosolids program requires a clean, environmentally friendly product. WSSC decided to address this problem by screening the sludge prior to the digesters.

SOLUTION PROVIDED BY HUBER TECHNOLOGY, LLC

WSSC heard of the HUBER STRAINPRESS® in use at other facilities and, after a visit to the HUBER booth at WEFTEC, decided to pursue it as a solution for themselves.

The STRAINPRESS is a high-performance sludge screening system designed for low energy consumption and maximum solids capture. Its compact and fully-enclosed design suits smaller buildings and provides odor-free operations.

Between 2021 and 2024, WSSC installed nine (9) units at five of their six facilities. This standardization has simplified maintenance through the commonality of equipment as well as reduced spare parts inventory. They can also have multiple configurations of screen sizes, simplifying process optimization or specific testing with multiple screen size openings.

PROJECT DATA

Client: WSSC Water

Location:

Damascus WRRF – Damascus, MD
Parkway WRRF – Laurel, MD
Piscataway WRRF – Accokeek, MD
West Branch WRRF – Upper
Marlboro, MD

Project Type: Sludge
Screening

HUBER Technology, LLC
Solution: HUBER
STRAINPRESS®

Completion Date:
2020-2024

IMPLEMENTATION & EXECUTION

Implementation started in 2020 with the most recent installation startup in 2024.

HUBER's engineering team collaborated with plant operators to ensure seamless integration with minimal downtime.



RESULTS & BENEFITS

Performance Improvements:

- ✓ Increase usable digester space.
- ✓ Improved digester efficiency
- ✓ Lower energy use, leading to operational savings.
- ✓ Reduced digester maintenance due to less cleaning.
- ✓ Improved operator safety due to less digester maintenance and inspection.

Operational & Environmental Gains:

- ✓ Cleaner Biosolids for land application as well as drying and compost operations.
- ✓ Enhanced digester efficiency
- ✓ Lower carbon footprint, aligning with the plant's sustainability goals.



CONCLUSION

The implementation of the HUBER STRAINPRESS® has dramatically improved sludge management and treatment at the WSSC facilities. With lower operating costs, improved environmental performance, and enhanced automation, the facility is now well-equipped to meet future regulatory and operational challenges.



ABOUT HUBER TECHNOLOGY, LLC

Headquartered in Denver, North Carolina, HUBER Technology, Inc. operates a 206,000-square-foot state-of-the-art facility that houses offices, training centers, and advanced manufacturing capabilities. This enables us to design, produce, and deliver a wide range of wastewater treatment equipment, from dewatering screw press systems, headworks screens, grit handling, septage receiving, tertiary filtration and equipment and drying of biosolids equipment for use in the water and wastewater industry.



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For more information about the HUBER Strainpress® please scan the QR code