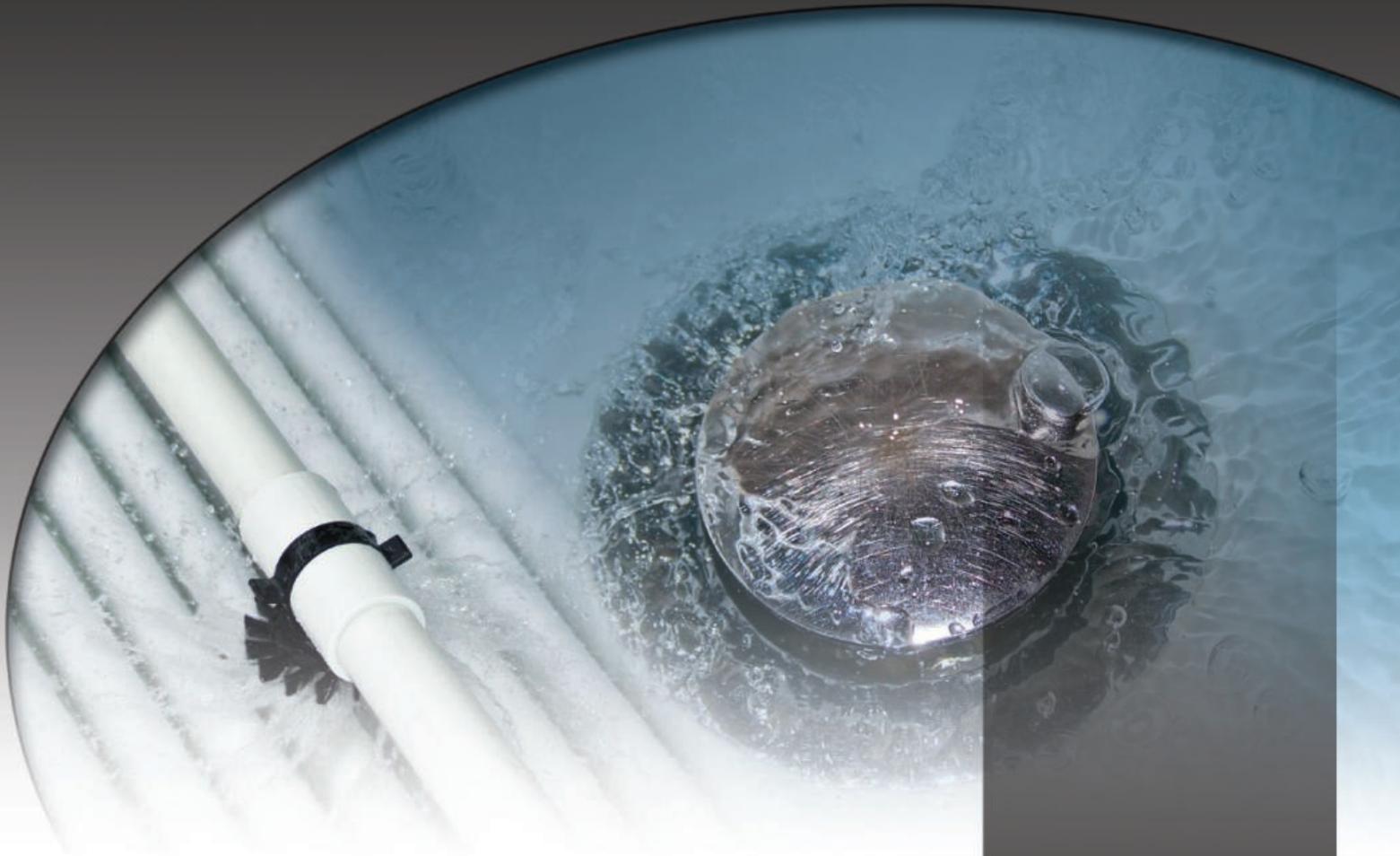


AdvanTex® Treatment Systems

AX-Greywater

Manufactured by **Orenco Systems**®, Inc.



**Greywater Treatment Systems
For Subsurface Irrigation and Water Reuse**

**Reuse and Recycle
Applications:**

- Irrigation
- Toilet flushing
- Industrial cooling
- Wetlands, ponds, lakes
- Groundwater recharge
- Fire suppression
- Vehicle washing
- Dust control



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AdvanTex® AX-Greywater

The AdvanTex® Advantage



Textile Treatment Media

The treatment medium is a uniform, engineered textile, which allows loading rates as high as 80 gpd/ft² (2000 L/day/m²).



Effluent Distribution

High-quality, low-horsepower pumps microdose the treatment media at regular intervals and proprietary spin nozzles efficiently distribute effluent, optimizing treatment.



Ultraviolet Disinfection

Our optional UV unit reduces bacteria by 99.999%,³ allowing greywater reuse as permitted by local regulations. The UV unit uses no chemicals and has no moving parts. It's protected in a small chamber inside the AdvanTex unit and only needs bulb replacement annually.

Pre-Plumbed, Energy-Efficient

With a 15-year track record, Orenco's AdvanTex® textile filter is a proven technology that's ideal for greywater treatment. AdvanTex Treatment Systems consistently produce clear effluent that meets stringent permit limits¹ and is suitable for a variety of reuse applications. Our biggest reuse project to date (profiled on the back page) saves the Boy Scouts of America up to 200,000 gallons (757 m³) of water per day when 40,000 scouts, leaders, and staff gather for the National Scout Jamboree in West Virginia.

Pre-Plumbed Units Save Time and Money

Both the AdvanTex AX-RT and AX-Max™ greywater systems are pre-plumbed, "plug & play" units that are easily installed. The entire system – including treatment, recirculation, and discharge – is built inside a single fiberglass tank. This simple design reduces costs for excavation, installation, and O&M.

Effluent Is Treated To Reuse Quality

Depending on local regulations, treated greywater can be reused for many purposes, including irrigation, toilet flushing, industrial cooling, and groundwater recharge. As water conservation has become a higher priority, more and more jurisdictions are enacting new requirements for onsite water reuse.

Low Power Costs Translate To LEED Points

AdvanTex units are highly energy-efficient, using fewer than 2 kWh per 1000 treated gallons² (3785 L). For the AX-RT, that equals just \$2-3/month, depending on local electricity rates. And low power costs can add up to extra points towards LEED certification.



¹ NSF® International Standard 40 Evaluation Report, April 2002. (Evaluation performed by NovaTec Consultants, Inc.)

² Internal tests.

³ Report prepared by NSF® International, March 2015.

AdvanTex AX-Greywater Textile Treatment Systems

AdvanTex AX25-RT: 1,000 gpd (3.8 m³)*
8.5' x 5' x 6' (2.3 x 1.5 x 1.8 m)
*Based on average flow.

AdvanTex AX-Max: 3,000 - 12,000 gpd (11.4 - 45.4 m³)*
14' - 42' x 7' x 8' (4.3 - 12.8 x 2.1 x 2.4 m)
*Based on average flow.

Prepackaged.
No recirc tank required.

Prepackaged.
No recirc tank required.



AdvanTex® AX-Greywater

Greywater Technology

Units Are Easy to Operate and Maintain

The technology behind AdvanTex Greywater Treatment Systems is simple enough that the units don't need a full-time operator. Periodic routine maintenance is typically all that's needed. Remote monitoring and control is an optional convenience.

All AdvanTex Units ...

- use physical filtration and natural, biological processes to reduce bacteria.
- can be monitored and controlled by remote telemetry.
- are modular and can be installed in multi-unit arrays.
- are easy to operate and maintain.
- are made in America.



Greywater Sources

Wastewater treatment systems designed for greywater reuse applications need to meet permit limits specific to their particular city, county, or state. Subject to these local requirements, possible greywater sources include laundry facilities, outdoor water features, sinks, showers, and dishwashers.

The Boy Scouts of America wanted an environmentally friendly method for disposing of the greywater generated by the 336 shower buildings at their showcase camping and training facility, the Summit Bechtel Family National Scout Reserve (SBR) in West Virginia. Orenco's AdvanTex® Treatment Systems proved to be the best solution. Engineers recommended a total of 224 AdvanTex AX20-RT units and two AdvanTex AX-Max™ units be used to treat the greywater for reuse in toilets. Photography, © Tim Felbinger.



Telemetry Controls

Orenco's telemetry-enabled control panels use a phone line or ethernet connection, facilitating convenient remote monitoring and control.



Optional touchscreens serve as a handy user interface for telemetry controls.

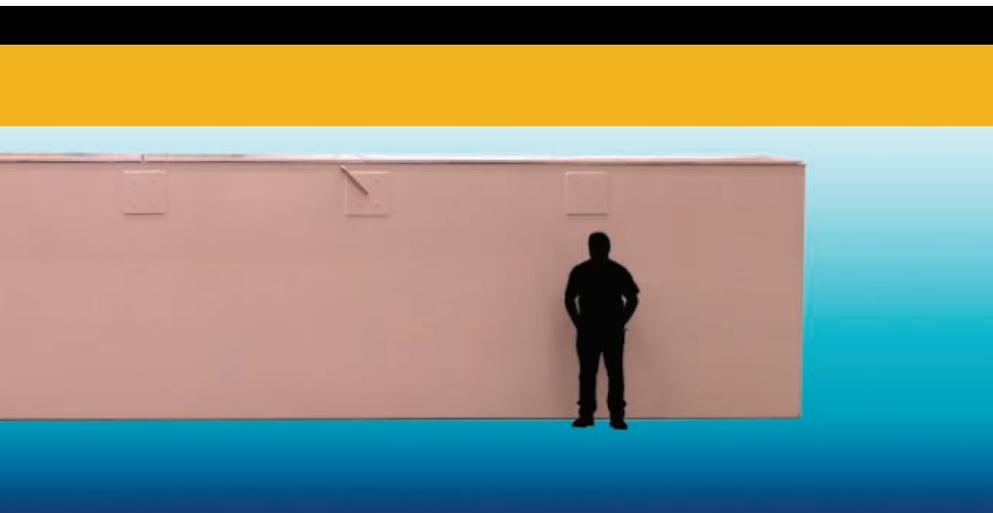


Technical Support

Orenco provides technical support to every professionally operated AdvanTex system for the life of the system. We also offer training for installers and operators, plus start-up services.

Proven Performance

Over the past 15 years, more than 30,000 AdvanTex units have been installed around the world. With a proven history in decentralized wastewater and greywater treatment, Orenco's AdvanTex brand is known for its performance and longevity.



AdvanTex® AX-Greywater

Carefully Engineered by Orenco

Orenco Systems has been researching, designing, manufacturing, and selling leading-edge products for small-scale wastewater treatment systems since 1981. The company has grown to become an industry leader, with about 300 employees and with more than 300 points of distribution in North America, Australasia, Europe, Africa, and Southwest Asia. Our products and technologies have been installed in more than 70 countries around the world.

Orenco maintains an environmental lab and employs dozens of civil, electrical, mechanical, and manufacturing engineers, as well as wastewater treatment system operators. Orenco's technologies are based on sound scientific principles of chemistry, biology, mechanical structure, and hydraulics. As a result, our research appears in numerous publications and our engineers are regularly asked to give workshops and trainings.



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Greywater Applications

Boy Scouts of America Summit Bechtel Reserve, West Virginia

Our largest reuse project to date serves approximately 40,000 scouts, leaders, and support staff when they gather every four years for the National Scout Jamboree at the Summit Bechtel Family National Scout Reserve (SBR) in West Virginia. When SBR was in the planning stages, designers searched for an environmentally friendly method for treating the camp's greywater. They chose to install an array of AdvanTex AX-RTs – 224 all together – to process the water from SBR's 336 shower facilities and treat it for reuse in the camp's toilets. Fully operational in 2012, this greywater system saves the facility up to 200,000 gallons (757 m³) of water per day during periods of high usage.



Cedar Springs Apartments, La Verne, California

Sustainable building practices are very important to the owners of the Cedar Springs Apartments in La Verne, California. That's why they worked with Biohabitats, an environmentally focused design firm, on their new Cedar Springs affordable housing community, which consists of 36 one-, two-, and three-bedroom apartments. The firm recommended an AdvanTex AX-Max unit for the job of treating greywater from residents' bathroom sinks, tubs, and showers. The high-quality effluent is then reused for toilet flushing and drip landscape irrigation. The AX-Max system handles an average daily flow of 2,600 gpd (9.8 m³/day), and if the owners ever want to expand the development, another AX-Max can easily be installed to accommodate the increased flows.



For More Information

To view a one-minute video of how AdvanTex Textile Filters work, go to www.orenco.com/corporate/technical_resources/videos.cfm and click on the "How it works" link under "AdvanTex Treatment Systems."

To find out how to earn LEED credits with AdvanTex technologies, go to www.orenco.com/systems/sustainable.cfm and click on "AdvanTex for LEED" under "LEED resources" in the sidebar.