

# Reliable, Energy-Efficient Wastewater Treatment



Single-family homes  
Small commercial properties  
New construction, repairs  
Tight lots, other site constraints  
Poor soils, shallow bury  
Stringent permit requirements  
Nitrogen reduction, disinfection  
Surface discharge

## Residential and Small Commercial Applications

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**innoflow**  
wastewater specialists

# AdvanTex® AX20 Treatment System



2,286 mm wide  
762 mm high

## A Sustainable Technology

In the AdvanTex® Treatment System, household sewage flows into the processing tank, where it separates into scum, sludge, and liquid effluent. Filtered effluent is dosed to the AdvanTex® filter unit, where it trickles through sheets of a synthetic textile. There, naturally occurring micro-organisms remove impurities from the effluent. After recirculating between the tank and the AdvanTex® filter, the effluent is discharged to the soil via irrigation or a drainfield.

The system's pump runs only a few minutes an hour, using just a few cents' worth of electricity a day.<sup>1</sup> Because solids decompose in the tank, the tank requires pumping only every 8–12 years, under normal use.<sup>2</sup> Using little energy, generating a minimum of sludge, and purifying wastewater for beneficial reuse, AdvanTex® Systems are one of the most environmentally sustainable technologies for home wastewater treatment.

More than 53,000 of Orenco's textile filters have been installed at homes, businesses, and community treatment systems around the world. Third-party testing shows that AdvanTex® Treatment Systems beat out the competition when it comes to treating wastewater. And field testing shows that AdvanTex® Treatment Systems work under real-world conditions.<sup>3</sup>

1. Maryland Department of the Environment. *Bay Restoration Fund Ranking Documentation*. Retrieved from <http://mde.maryland.gov/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Documents/BAT%20Ranking%20Document.pdf>
2. Bounds, T. R. (1995). *Septic Tank Septage Pumping Intervals*. Sutherlin, Oregon: Orenco Systems, Inc., p. 13.
3. Environment Bay of Plenty. (2006). *Nitrogen reduction trials of advanced on-site effluent treatment systems*. Retrieved from <https://www.boprc.govt.nz/media/33112/Report-2006-OSETTrial1-2005-2006pdf.pdf>

Leverenz, H., Darby, J., & Tchobanoglous, G. (2000). *Evaluation of textile filters for the treatment of septic tank effluent*. University of California at Davis.

## Textile Filters

*"The effluent from the filter units typically was clear with no odor... The increased loading rate allows for a decrease in the footprint required by filter units (compared to sand and gravel filters)... In an onsite treatment scenario, textile filter effluent could be utilised for landscape irrigation."*

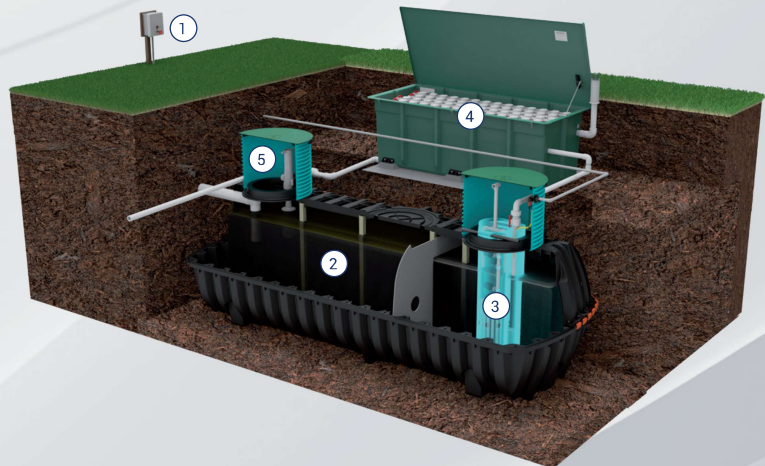
### Typical backyard configuration of an AdvanTex® Treatment System.

The system has five main functional parts:

1. MVP control panel\*
2. Processing tank
3. Biotube® pumping package
4. AdvanTex® filter
5. Recirculating splitter valve

\*VeriComm® web-based monitoring system

*Other configurations and models are available.*





# Onsite Treatment of Residential Water

## AdvanTex® Gives You Peace Of Mind

Orenco's AdvanTex® Treatment Systems aren't just a product. They're part of a comprehensive program, for homeowners' peace of mind.

### Authorised Dealers and Trained Installers

AdvanTex® Treatment Systems are sold by authorised dealers, who provide ongoing support and warranty service. Dealers ensure that AdvanTex® Treatment Systems are set in place by trained installers, following Orenco's instructions.

### Trained Service Providers

Like any on-site technology, your AdvanTex® Treatment System benefits from regular maintenance by a trained service provider. Field maintenance report forms are digitally archived for future reference.

### Complete, Carefully Engineered Package

Your AdvanTex® Treatment System comes as a totally premanufactured package, including AdvanTex® textile filter, Biotube® pumping package, and "smart" control panel with ClickTight™ wiring connection system. AdvanTex® can be installed on most lots in less than a day.

### Low Routine Maintenance Costs

AdvanTex® Treatment Systems are easy to service and clean. Since maintenance is minimal, so are the long-term costs. Each system comes with a Homeowner's Manual, with tips for preventive maintenance. And all systems are sized to allow for a minimum of 24 hours of wastewater storage, at average daily flows. So operators can provide "emergency" service during normal working hours, keeping service costs down.

### Low Power Costs

AdvanTex® uses very little power... about \$2.80 per month (based on an average cost of 16 cents per kilowatt-hour). Competing products use 2-5 times that much!<sup>4</sup>

### Service Provider Notifications

AdvanTex® Treatment Systems equipped with VeriComm® Control Panels automatically notify service providers of irregular conditions.

### Tamper-Resistant Lids

The lid of the AdvanTex filter is affixed with recessed bolts, making it very tamper resistant.

### Warrantied Products

Orenco Systems, Inc., provides a limited, multiyear warranty on all materials and workmanship.

4. Maryland's "Bay Restoration Fund Ranking Documentation," <http://mde.maryland.gov/programs/Water/BayRestorationFund/OnsiteDisposalSystems/Documents/BAT%20Ranking%20Document.pdf>



*AdvanTex® turns household wastewater into clear effluent you can reuse for subsurface irrigation (subject to local regulations).*



### Round-the-Clock Monitoring

Your AdvanTex® Treatment System may include a control panel with a remote telemetry unit and a round-the-clock, web-based monitoring system, supervised by your service provider. You'll have even more peace of mind, knowing that the VeriComm® Monitoring System is continually and automatically verifying the operation of your system.

# AdvanTex® AX20 Treatment System

## Carefully Engineered by Orenco

With a deep respect for the environment and a long tradition of innovative problem-solving, Orenco Systems designs and builds the world's best decentralised wastewater systems with pride in Southern Oregon. Our products help ensure the health and safety of people, neighborhoods, and communities everywhere by protecting the world's water.

We maintain an environmental lab and employ 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.

Founded in 1981, Orenco has become an industry leader, with about 400 employees and some 330 points of distribution across North and Central America, Australasia, Europe, and Africa. Our systems have been installed in more than 70 countries around the world.

### AdvanTex® Treatment Systems are available in New Zealand through Innoflow Technologies.

Innoflow provides tailored solutions for all facets of wastewater management. Using our high-performance modular products, we design and build flexible, environmentally sustainable systems for residential, community and commercial projects.

If you have a wastewater treatment need for your home or upcoming project, we have a solution. Let's talk.



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wastewater specialists



*Your health is our priority. At Orenco Systems  
, we are committed to protecting the world's water.*



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**Franklin Electric**



AdvanTex® Treatment System AXN Models  
meet the requirements of NSF-ANSI Standard 40  
and 245 for Class I Systems. Visit [www.nsf.org](http://www.nsf.org) to  
view our Certified Products.

