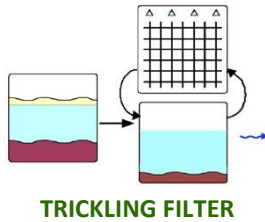


Firm: Orenco Systems Incorporated
www.orenco.com

System: **AdvanTex AX20 RT**

Category:



Process: Wastewater enters a septic tank for primary treatment and sedimentation. Passing through a filter, the effluent enters the AX20RT unit by gravity. The lower half acts as a clarification/anoxic denitrification zone. A pump circulates and sprays the effluent over sheets of synthetic textile sheets located high in the tank in an unsaturated zone. The textile media maximizes the surface area supporting aerobic microbes, which nitrify the effluent. The effluent then drains back to the lower, anoxic section for denitrification and recirculation. Effluent recycles at least three times before exiting. Dispersal can be by a gravity exit at roughly 36 inches below grade, or by a second pump.

System: A septic tank with effluent filter is required for pretreatment. The treatment unit holds another 800 gallons with all components factory installed, lowering installation costs. The system does not replace the discharge components.



Flow Range: 500-1,500 gpd

Tests: NSF/ANSI 245 for denitrification
Suffolk County Pilot 1

Cost: \$12,000 - \$15,000 for septic tank and treatment equipment. Cost does not include dispersal system.

Energy: Pumps are normally no more than 1/3 hp and runs intermittently. Estimated use is 28 kWh/month at an estimated cost of \$5 per month.

Tanks: Fibreglass, preceding septic tank can be concrete.

Venting: A 2-inch diameter vent is needed.

Orenco Systems Inc.
 814 Airway Avenue
 Sutherlin, OR 97479
 Telephone:
 1 800 348 9843
 1 541 459 4449

Footprint: The treatment pod only is 44 SF, 20 SF visible

Depth: 6 – 8.3 feet

Life Cycle: Pumps, 15 year with repairable parts (Cost: \$200-\$600)
 Float switches, 5-10 years (Cost \$35 + labor)

Local Distributors:
http://orenco.com/corporate/distributor_locator/

Warranty: 3 years

Maintenance: Annually; pump-outs as needed.



Notes:

- Timer operation for surge control.
- Seasonal use can be accommodated.
- Optional telemetry and UV packages are available.
- Large tankage allows longer residence time, reducing energy costs.
- When electricity is cut, the system has storage for one day's additional use. A receptacle at the control panel for generator hook-up is recommended. Untreated effluent does not pass through the system when there is no power.



Installations: Update to AX20 system, which has extensive installations.

Treatment:

	<i>TN</i> <i>/aver >50</i>	<i>cBOD</i> <i>25 mg/L</i> <i>aver/mon</i>	<i>TSS</i> <i>30 mg/L</i> <i>aver/mon</i>
<i>Performance</i> <i>mg/L</i>	15-25	2-9	3-10
<i>%</i>	50-70%	97%	99%

Advantages:

- Low energy use
- Options for Ultraviolet disinfectant
- Remote telemetry can enhance operations/maintenance
- Quick recovery time for seasonal use
- Simple maintenance

Disadvantages:

- Large composite fiberglass cover visible at ground level
- Needs anti-floatation device where water tables are high
- Needs a generator for long electric blackouts