

# AdvanTex® AX20-RTUV Treatment System

## Applications

Orenco's AdvanTex® AX20-RTUV Treatment System is a single, complete, self-contained module that treats septic tank effluent to better than secondary standards with nitrogen reduction and ultraviolet disinfection before discharging it by means of pump or gravity. It is ideal for:

- Flows up to 500 gpd (1892 L)
- Small sites and poor soils
- NPDES applications
- Repairs and retrofits
- Sites that require shallow bury
- Strict discharge limits, including disinfection



## General

Following septic tanks equipped with Biotube® effluent filters, the AdvanTex AX20-RTUV eliminates the need for separate recirc, treatment, discharge, and disinfection tanks and basins by performing all functions within a single module. It also reduces the number of risers and lids needed in the treatment train. For sites requiring anti-buoyancy measures, Orenco offers antiflotation kits with turnbuckles.

The heart of the AX20-RTUV is the AdvanTex Recirculating Treatment Tank, a sturdy, watertight, corrosion-proof fiberglass tank that includes the same dependable, textile treatment media found in all AdvanTex products.

After AdvanTex treatment, effluent flows by gravity through the contact chamber and around the UV lamp where it is disinfected in a 360-degree contact zone. The unit uses no chemicals and has no moving parts. It requires cleaning yearly and a lamp replacement every two years. In side-by-side NSF® testing, the Orenco AXUV reduced bacteria by 99.999% (5 logs), meeting or exceeding the performance of other residential UV disinfection

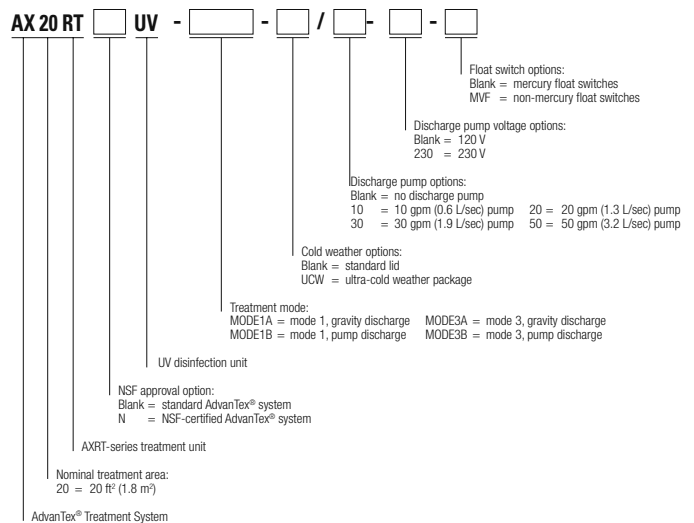
## Standard Models

AX20RTUV-MODE1A

AX20RTUV-MODE1B/10

AX20RTUV-MODE1B/30

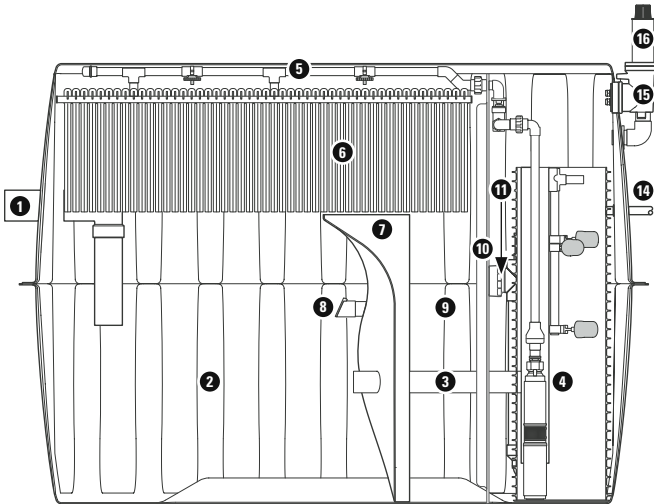
## Nomenclature



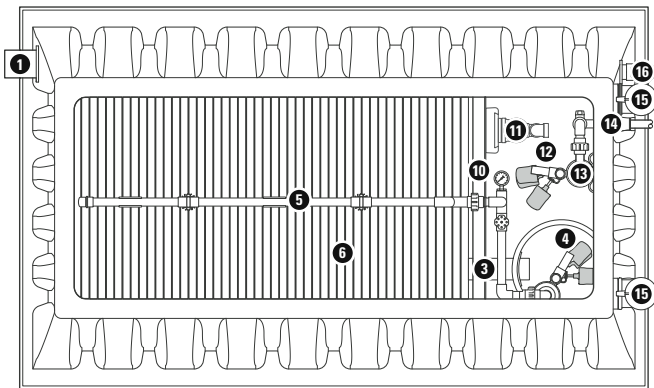
AdvanTex® Treatment System AX-RTN Models meet the requirements of NSF/ANSI Standard 40 for Class I Systems.



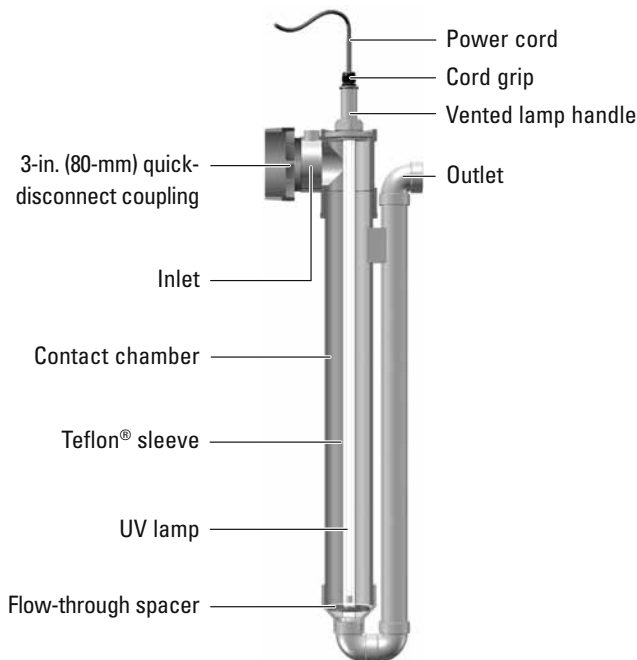
UL-recognized Orenco® AXUV Disinfection Unit.



AdvanTex AX20-RTUV side view (pump discharge model shown)



AdvanTex AX20-RTUV top view (pump discharge model shown)



Orengo AXUV Disinfection Unit, (cutaway view)

## Components

1. Inlet
2. Recirc/blend chamber
3. Recirc transfer line
4. Recirc pumping system
5. Manifold and spin nozzles
6. Treatment media
7. Tank baffle
8. Recirc return valve
9. Recirc/filtrate chamber
10. Divider wall
11. Orengo AXUV ultraviolet disinfection unit
12. Disinfection/discharge chamber
13. Discharge pumping system
14. Outlet
15. External splice box
16. Passive air vent
17. Control panel (not shown)
18. Biotube® Effluent Filter\* (in septic tank, not shown)

## Specifications

### Nominal Dimensions†

Length, in. (mm)	102 (2591)
Width, in. (mm)	62 (1575)
Height, in. (mm)	72 (1829)
Footprint, ft² (m²)	44 (4.11)
Footprint, ft² (m²) (after installation)	20 (1.86)
Lid insulation value	R-6 (RSI-1.1)

### Dry Weight, lb (kg)

Gravity discharge model	908 (412)
Pump discharge model	948 (430)

### UV Unit Performance‡

Typical contact chamber UV dose (65% transmittance 80% lamp degradation)	270,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$ at 1 gpm (0.06 L/sec) 55,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$ at 5 gpm (0.32 L/sec) 28,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$ at 10 gpm (0.63 L/sec)
Minimum target dose	30,000-38,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$
Lamp	31 in. (787 mm), 92 VAC, 50 or 60 Hz, 425 mA, 38 W; 254 nm UVC intensity at 1m is 125 $\mu\text{W}/\text{cm}^2$
Power cord	600V, 18/2 UL Type TC, 25 ft (7.62 m) length
Cord plug	UL listed four-pin connector, lampholder, electric discharge, 1000 V or less
Ballast	120V, AC, 50 or 60 Hz, located in UL-listed Orengo® control panel

\* Not for individual sale in the state of Georgia.

† Nominal values provided. See AdvanTex® Treatment System drawings for exact dimensions.

‡ For additional info and specs, see "Orengo® AXUV Disinfection Unit" (NTD-UV-OSI-2).