

AdvanTex[®] AX20-RTUV Treatment System

Applications

Orenco's AdvanTex[®] AX20-RTUV Treatment System is a single, complete, self-contained module that treats residential-strength 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:

- Repairs and retrofits
- NPDES applications
- Small sites and poor soils
- Strict discharge limits, including disinfection
- Sites that require shallow bury



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 antibuoyancy 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 treatment, effluent flows by gravity into the UV disinfection unit, through the contact chamber, and around the UV lamp where it is disinfected in a 360-degree contact zone. The UV disinfection unit uses no chemicals and has no moving parts. It requires annual cleaning and lamp replacement. 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

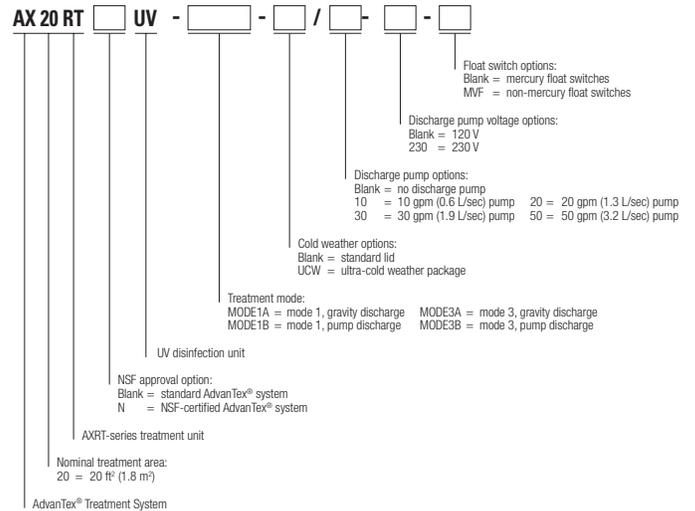
Standard Models

AX20RTUV-MODE1A

AX20RTUV-MODE1B/10

AX20RTUV-MODE1B/30

Product Code Diagram



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



UL-recognized Orenco[®] AXUV Disinfection Unit.

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.	Orenco 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)

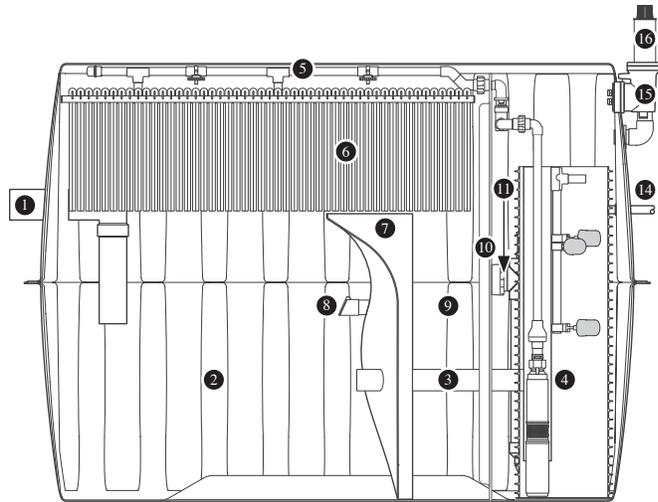
UV Unit Performance‡

Typical contact chamber UV dose (65% transmittance 20% 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 Orenco® control panel

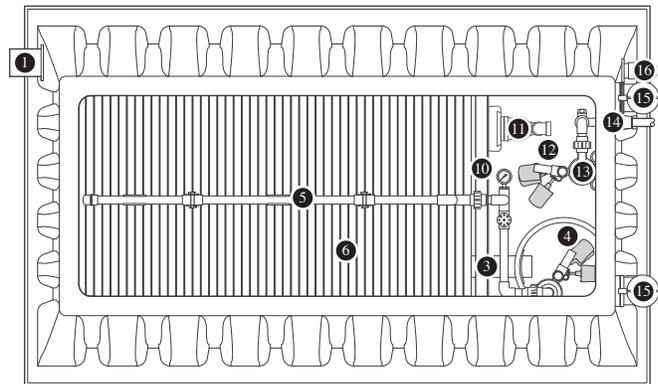
* Not for individual sale in the state of Georgia.

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

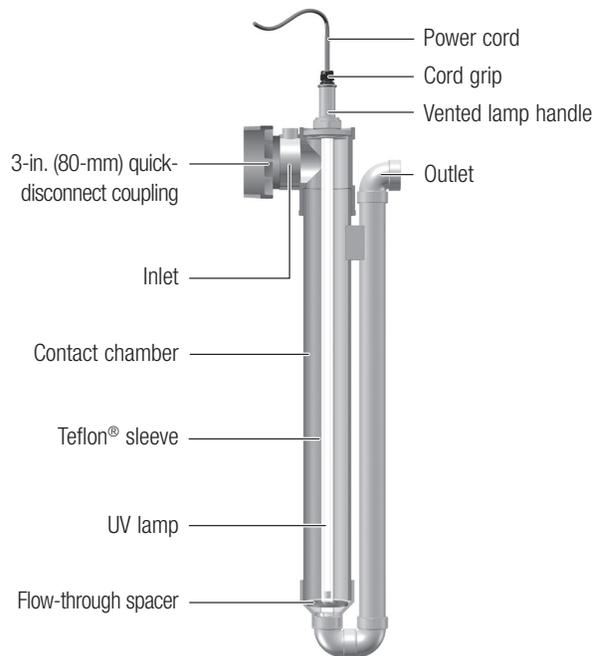
‡ For additional info and specs, see "Orenco® AXUV Disinfection Unit" (NTD-UV-OSI-2).



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



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



Orenco AXUV Disinfection Unit, (cutaway view)