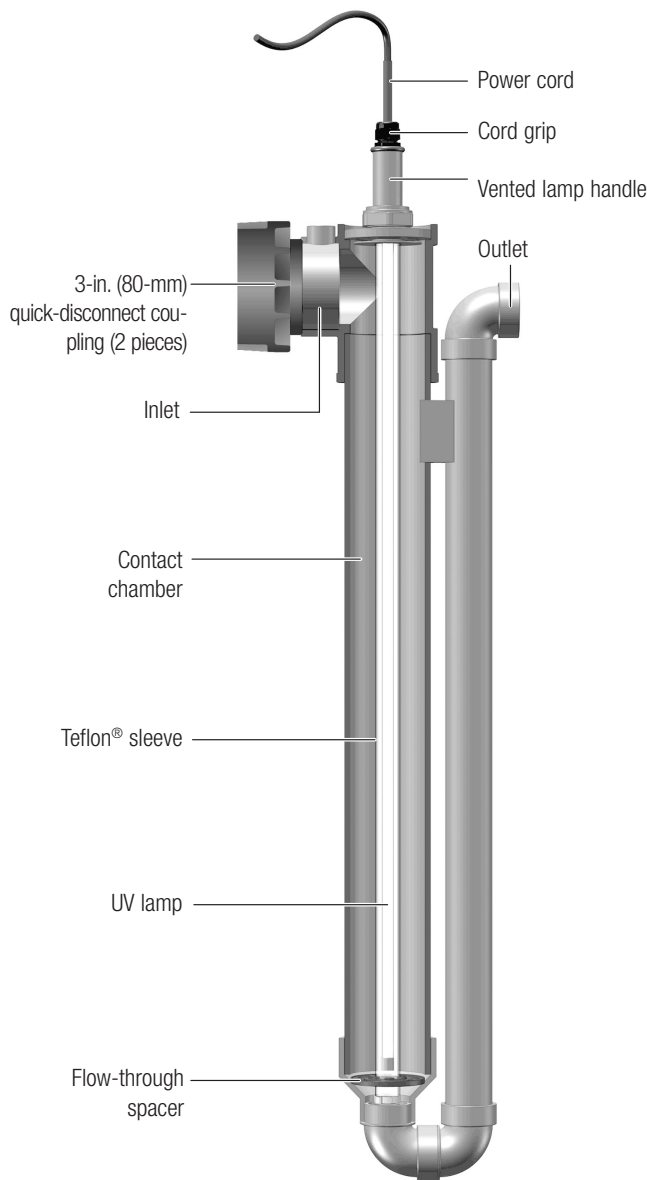


Orengo® AXUV Disinfection Unit

Applications

The Orengo® AXUV Disinfection Unit is designed for use in residential applications after advanced secondary treatment (10 mg/L cBOD₅/TSS) by an AdvanTex® Treatment System when disinfection is required before dispersal. It requires installation inside a pump or gravity discharge basin or in a separate tank following an AdvanTex Treatment System. AXUV units can be also be mounted in the AX20-RT Treatment System.



AXUV Disinfection Unit, Cutaway View

General

Treated 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 annual cleaning and lamp replacement.

In side-by-side NSF® testing, the AXUV reduced bacteria by 99.999% (5 logs), meeting or exceeding the performance of other residential UV disinfection units.

For protection, the power ballast and lamp current sensor for the AXUV disinfection unit are housed in either an Orengo MVP™ digital control panel or a VeriComm™ remote telemetry control panel. These panels prevent discharge of non-disinfected effluent due to lamp failure or control panel failure. The current sensor monitors lamp function and, in the event of lamp failure, the discharge pump is automatically disabled. With MVP-equipped systems, an audible and visible alarm is activated. With VeriComm-equipped systems, an e-mail alert is sent to the Service Provider.

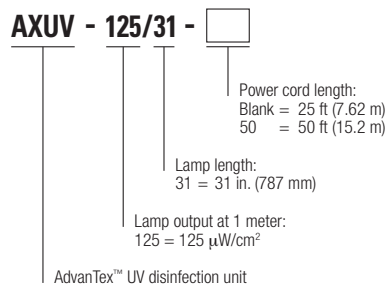
Features/Specifications

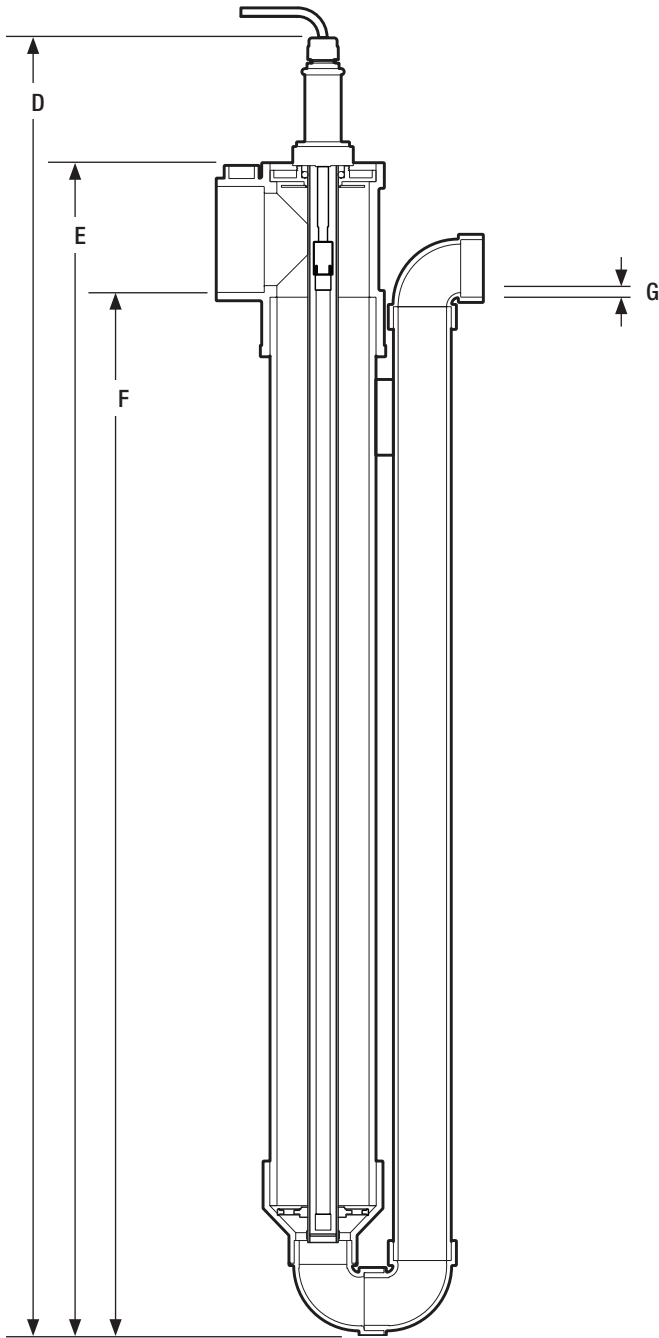
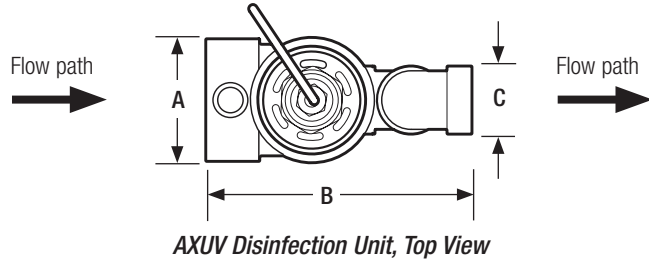
- UL-recognized for US and Canada
- Bacteria reduced by 99.999% (5 logs)
- Flow path designed for maximum contact time between effluent and lamp
- Teflon sleeve to protect lamp and minimize buildup and service intervals
- Quick-disconnect fitting for easy inspection and unit cleaning
- Power ballast and lamp current sensor housed in a control panel (not a tank or riser) to minimize corrosion and failure due to environmental exposure
- Components designed to work together with AdvanTex Treatment Systems — no piecemeal disinfection assemblies and wiring

Standard Model

AXUV-125/31

Product Code Diagram





AXUV Disinfection Unit, Side Cutaway View

Materials of Construction

Cord grip	Nylon
Contact chamber	3-in. (80-mm) diameter Sch 40 black ABS
Inlet tee	3-in. (80-mm) Sch 40 black ABS
Other fittings	Black ABS
Quick-disconnect coupling	Black ABS
1½-in. IPS outlet	Black ABS
Lamp assembly seal	EPDM rubber
Lamp sleeve	Teflon®

Specifications

UV Unit Dimensions, in. (mm)

A	5.63 (143)
B	10.06 (256)
C	1.50 IPS (40 DN)
D	42.25 (1073)
E	38.56 (979)
F	34.50 (876)
G, inlet-to-outlet fall	0.50 (13)

UV Unit Performance

Typical contact chamber	270,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$ at 1 gpm (0.06 L/sec)
UV dose (65% transmittance, 20% lamp degradation)	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 inches (787 mm), 92 VAC, 50 or 60 Hz, 425 mA, 38 W; 254 nm UVC intensity at 1 m is 125 $\mu\text{W}/\text{cm}^2$
Power cord	600V, 18/2 UL Type TC
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