



Portable, Fully-Plumbed Wastewater Treatment for Remote Sites

#### **Orenco Systems®, Inc.**

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#### Serving 3 to 3,000 Persons:

- Remote sanitation. work camps, marine facilities
- Military installations
- Emergency sanitation, disaster relief
- Humanitarian aid
- Temporary flow diversion, off-line situations
- Seasonal flow increases

# AdvanTex<sup>®</sup> AX-Mobile<sup>™</sup> Treatment System

## Get reliable, energy-efficient Wastewater Treatment ... **Anywhere!**



Mining camps in Alberta and Texas. A pipeline response station in the Yukon. An oil drilling platform in Cook Inlet. A hurricane-devastated resort in St. Lucia.

For more than a decade, Orenco's AdvanTex<sup>®</sup> technology has provided reliable, energy-efficient wastewater treatment in some of the world's most remote places. Now, the AdvanTex AX-Mobile<sup>™</sup> is Orenco's most portable treatment plant yet.

### **Complete, Portable Solution** for Wastewater Treatment

The AX-Mobile Treatment System is completely pre-packaged and built inside a durable, insulated fiberglass tank that is easy to ship and set. Ship by truck, rail, cargo container, or aircraft.

Tanks range from 14'-42' (4.3-12.8 m) long and can be installed singly, serving up to 250 people, or in multi-tank arrays serving 3,000 people or more. The system is installed above-ground, so it can be used temporarily and then relocated as needed.

This AX-Mobile was airlifted into British Columbia.

This AX-Mobile was shipped by cargo container to New Zealand.



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AX-Mobile units are modular and come in 14' - 42' lengths

(max of 40' outside North America). This 42-ft unit can serve up to 250 persons.

For below-grade or permanent installations, see AdvanTex AX-Max™ brochure: ABR-ATX-MAX-1

# AdvanTex<sup>®</sup> AX-Mobile<sup>™</sup> Treatment System

### Set, Plumb, Wire, and Go

The AX-Mobile is pre-plumbed and easy to install. All the treatment media, pumps, and controls are included. Optional equipment for reducing solids or meeting more stringent permit limits (such as UV disinfection units) can be pre-installed as well. Consequently, AX-Mobile projects can meet the tightest deadlines. For example, an AX-Mobile system was up-and-running on the Caribbean island of St. Lucia four weeks after initial client contact, allowing a hurricane-devastated resort to re-open in time for Christmas holiday bookings (see back).

## **Tech Support by Orenco**

Orenco has been in business for nearly 35 years and the company has earned an industry-wide reputation for outstanding customer support. This always matters, but it's especially important when your wastewater system is in a remote and isolated location.

#### Applications

- Remote sanitation, work camps, marine facilities
- Military installations
- Emergency sanitation, disaster relief
- Humanitarian aid
- Temporary flow diversion, off-line situations
- Seasonal flow increases

#### **Benefits**

- Self-contained, fully-plumbed
- Portable, versatile
- Durable fiberglass tank
- Easy to set and operate
- Low power use: 1-2 kWh per 1000 treated gal. (3785 L)
- · Meets stringent permit limits
- · Re-use quality effluent

#### Orenco's sales engineers and wastewater specialists provide ...

- Designer, installer, and operator training
- Design assistance, plan reviews
- Technical specs, sample drawings
- Installation, operation, and maintenance manuals
- Post-sales Account Managers
- · Lifetime technical support
- Continuing education

"I've always liked the proactive approach that OSI takes. I have two criteria regarding any product specifications: the product does the job and the company provides technical support. OSI excels in both, which makes me look good and my clients happy."

> — David Monihan, Jr. PE, RLS, Arizona

An AX-Mobile was installed at Sugar Beach, a Viceroy Resort, on the rugged volcanic island of St. Lucia, between two massive pitons.



#### **Persons Served\***

- AX-Mobile-21: up to 125 persons
- AX-Mobile-42: up to 250 persons
- Multi-unit arrays: 3,000+ persons

\* Number of persons served is affected by organic, inorganic, and hydraulic loading, as well as system configuration.

#### **Dimensions\*\***

• 14'-42' x 7' x 8' (4.3-12.8 m x 2.1 m x 2.4 m)

\*\*Outside North America, max length 40'



The AX-Mobile uses textile sheets in a packed bed media filter. It can treat blackwater and greywater to a level where effluent can be reused for surface or subsurface irrigation or for dust control (as regulations permit).



High-quality, low horsepower pumps micro-dose the treatment media at regular intervals, and proprietary spin nozzles efficiently distribute the effluent, optimizing treatment.



The remote telemetry control panel for an AX-Mobile Treatment System is typically installed at the end of the unit and pre-wired.

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#### Carefully Engineered by Orenco

Orenco Systems has been researching, designing, manufacturing, and selling leading-edge products for decentralized wastewater treatment systems since 1981. The company has grown to become an industry leader, with about 250 employees and 300 points of distribution in North America, Australasia, Europe, Africa, and Southwest Asia. Our systems have been installed in more than 65 countries around the world.

Orenco maintains an environmental lab and employs 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.





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### **Project Summaries**

#### Carrizo Springs Miner's Camp, Catarina, Texas

An AX-Mobile Treatment System was installed at Carrizo Springs in Texas to serve a 233-person miner's camp with bunkhouses and kitchen. The client wanted a completely pre-plumbed, pre-wired, mobile system that could be moved to another mining site



in the future. The system includes a controls cabinet at the end of the unit and a foldup catwalk for operators. It also includes a pre-installed UV disinfection system. The system was commissioned in August 2011 and effluent sampling shows it is producing effluent BOD of 8 mg/L and TSS of 11 mg/L, while running at 100% of daily design capacity.

#### Alyeska Pump Station, Alaska

An AX-Mobile Treatment System with optional control room was purchased by the Alyeska Pipeline Company for a remote site serving up to 44 pipeline workers in central Alaska, where winter temperatures can be as low as -60° F (-50° C). The system had to be properly designed and insulated to allow the necessary biological treatment processes to function optimally, yearround. In addition, since the system was installed above ground, on permafrost, it



had to meet strict NPDES permit requirements for surface discharge, since subsurface discharge was not an option. The system was commissioned in December 2009 and sampling shows that effluent quality is averaging BOD of 6 mg/L, TSS of 5 mg/L, and fecal coliform of 5.9 MPN/100 m/L.

#### Sugar Beach, a Viceroy Resort, St. Lucia

An AX-Mobile was installed on this awardwinning, 60-cottage resort on the island of St. Lucia, in the Caribbean. It replaced an old activated sludge plant that was destroyed by Hurricane Tomas on Oct. 31, 2010. Orenco was brought into the project on Nov. 18 and had the system shipped, installed, and commissioned by the resort's December 20 re-opening date. At only 7' (2.1 m) wide and



12,000 pounds (5443 kg), the units were trucked to the site, down steep narrow roads, on the back of a standard flatbed and lifted with a crane. Less than two days after reaching the site, the system was up and running, in spite of power fluctuations and other problems. This system includes a UV disinfection unit, and effluent sampling shows it is producing 7 mg/L BOD. An addition to the treatment systems is currently in process.

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