

CASE STUDY

An Affordable Wastewater Treatment Solution for Commercial Properties

ANTHOUSSA BEACH HOTEL, GREECE

Problem

The Anthoussa Beach Hotel resort needed to replace an extended aeration package treatment plant. Owners needed a solution that would provide excellent treatment without disturbing their guests.

Solution

Dialynas SA designed and installed a wastewater system for the resort using a total of ten AdvanTex AX100 textile filter pods for secondary treatment. Treated, disinfected effluent is used for drip irrigation on the hotel property, and the nearly invisible AX100 system produces no annoying noise or odors.

A Quiet, Odorless AdvanTex System Serves a Downtown Resort

Anthoussa Beach Hotel is a resort in Stalida, a seaside town near Heraklion on the island of Crete. With 660 beds, a pool, a private beach, restaurants, and bars, it is one of the best hotels in the area.

In 2005, to replace an extended aeration package plant, Dialynas SA designed and installed a new wastewater treatment system for the resort using eight AdvanTex AX100 textile filter pods for secondary treatment.



Anthoussa Beach Hotel, a resort on the island of Crete, uses ten AdvanTex AX100 textile filter pods that are nearly invisible to the guests and free of noise and odors.

Commercial Market

Project Overview

STALIDA, CRETE GREECE



Design Parameters

- 660-bed hotel
- 58,000 (220 m³/day) gpd peak flow
- Minimize inconvenience to hotel guests

Start-up Date

- April 2006

Total Project Cost

- \$185,600 (145,000 € at prevailing exchange rates)

Funding Source

- Private

Design Targets

- 30 mg/l BOD₅
- 25 mg/l TSS

Collection System

- Onsite septic and grease tanks

Primary Treatment

- 52,800 gal. (20 m³) of septic tankage

Secondary Treatment

- 31,700 gal. (120 m³) recirculation/blend tank
- 10 AdvanTex® AX100 treatment pods
- Submersible aerator in recirc tank

Dispersal

- One 7,900 gal. (30 m³) discharge tank
- Pumped to drip irrigation

Operation

- Operation/maintenance by Dialynas S. A.

Effluent Quality

- BOD₅: <15 mg/l
- TSS: <10 mg/l

Photo courtesy of Anthoussa Hotels - www.anthoussa.gr

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In 2008, hotel owners installed two additional AX100 units to accommodate increased flows, bringing the total to 10 treatment units.

Wastewater from the rooms, restaurants, bars, and all public spaces is collected in a septic tank. From there, effluent is recirculated through the AdvanTex pods, then disinfected before dispersal by drip irrigation on to the hotel property. The resulting effluent has 3-10 mg/L BOD₅ and 2-9 mg/L TSS.

The treatment system is located in front of the hotel, close to the street. Shops, restaurants, and cafes are located within a few meters of the AX100 units. Yet because the AX100 system produces no noise or odors, it is virtually invisible.



The Anthoussa Beach Hotel's AdvanTex Treatment System is located in front of the hotel, close to the street.



After initial installation, the treatment system was relocated to an area next to the parking lot in order to accommodate hotel expansion.

odors, no disturbances of any kind, even with the new installation located just over the parking area near the hotel entrance. Our engineering team is very proud of this accomplishment, and the hotel management has enjoyed a flawless system for five years now."

Georgios Dialynas, the engineer who designed and oversaw the installation of the system, was initially concerned about the hotel owner's requirements.

"At first, none of us thought that we could manage to make this project meet all the strict requirements set by the customer. Now that the system is complete, however, there are no

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"The most impressive part was the simplicity of upgrading the plant to another 25% capacity and even moving the whole project to a more desirable location at a very reasonable cost."

~ Thanos Papageorgiou
Anthoussa Beach Hotel
owner/general manager

For more information about AdvanTex® Treatment Systems, contact Orenco Systems®, Inc., at 800-348-9843.



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