

# SHOPPING MALLS & INDUSTRIAL KITCHENS

Waste Water Treatment Solutions



## CASE STUDY

One of the most critical sources of environmental problems in any shopping center or mall is the food court, with its **greasy waste waters**. From a long term experience and survey, majority of malls and shopping centers have **serious compliance problems** with waters coming from grease traps. Grease traps are designed to retain waste waters for a period of time, generating bad odors and increasing organic loads that will affect the **downstream treatment plant**, besides not complying with majority of reject limits for waste waters established by local authorities.

### What do they do?

A major south American shopping mall, with dozens of restaurants in the food court and thousands of daily meals to prepare and serve, was facing the more and more compliance problems with local authorities, regarding **COD and O&G limits**. Moreover, **bad odors** coming from grease traps in parking lot were also a problem gaining weight.

### What are they trying to achieve?

Replacing standard or more sophisticated (although with limited performance) grease traps by **chemical treatment units**, with flotation devices (DAF), we manage to perform a proper chemical treatment to the waste waters, remove all solids, fats and greases, avoid bad odors, besides reducing drastically its organic loads, preparing these waters for a final **disinfection and filltration** which will allow them to be reintroduced into an internal feed line to flush waters and irrigation.



## SOLUTION

VentilAQUA brought to this process an advanced oxidation technology, using electricity, called **electro-coagulation** and **electro-oxidation**, which allows a more intense and efficient organic matter removal without chemicals, managing to reduce contamination to very low levels and allowing to use common multimedia filters with longer lifetime and to **reuse these waters**.

## RESULTS

Under 1 year payback time with water consumption reduction, as about **90% of food court waste waters are recovered into flushing toilets, thus reducing dramatically water consumption in toilet rooms**. Elimination of complex removal and trucking of liquid wastes and greases, highly loaded, and consequent **extremely high cost**.



## DATA RESULTS:

