

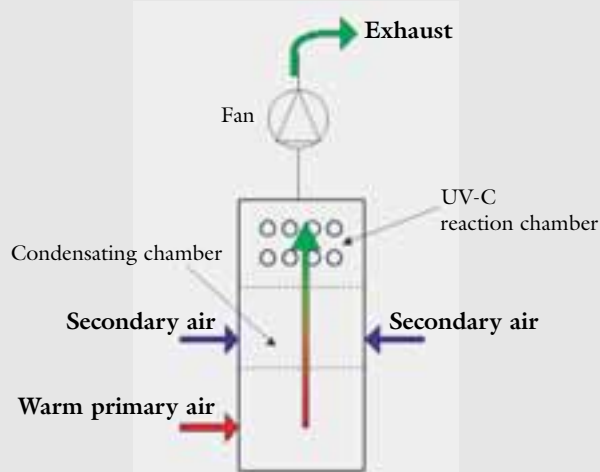
JIMCO FLO-P

Air-cleaning system for the reduction of grease and odour from industrial exhausts

For a number of years, JIMCO A/S has developed and manufactured air-cleaning systems specifically for the reduction of grease and aromatic compounds in exhaust air with high temperatures (frying, boiling and deep frying processes). JIMCO systems are based on UV-C & Ozone Technology that results in the cold incineration of organic matter from a process called Photolytic oxidation. The process leaves no harmful residues.

The process works as follows:

- Step 1: Warm contaminated air (primary air) enters the lower part of the unit.
- Step 2: The primary air passes through a maze filter resulting in the separation of large grease and water droplets.
- Step 3: Primary air is cooled by mixing it with secondary air from the room (e.g. via a spot exhaust from a production line). The mixed air then passes over a bank of condensation blocks causing further grease/water separation from the air stream. This reduces power consumption during the Photolytic oxidation process.
- Step 4: The Photolytic oxidation process is achieved using special low-pressure UV-C lamps that also generate a small quantity of ozone. Exposure to UV-C light breaks down organic compounds in the air and subsequent treatment with ozone completes the oxidation process.



The FLO-P air cleaning system is normally made according to client's specific requirements. There are two main considerations when designing the air treatment system. The first step is to calculate the unit size to successfully treat the air. This is based on the process air organic content, air temperatures, air flow-rates, grease and odour destruction requirements, etc. The second step is to configure the installation to meet space requirements because frequently space is at a premium in process plants. Over the years JIMCO has designed units that can be floor, ceiling, wall or roof mounted to suit the installation requirements of all our clients. Access for maintenance is also carefully considered. The system shown to the right is a ceiling mounted version.



The system to the left is installed on a platform under the ceiling. It has direct access for servicing via stairs.

The system is designed for two industrial oil fryers, producing a Danish speciality called "æbleskiver". The process generates a large quantity of airborne oil, which prior to the installation condensed in the air ducts and contaminated air surrounding the factory with a strong odour. Following the installation of a JIMCO FLO-9579 P the problem was solved. In addition to having no oil in the ventilation ducts, the odour emissions to the surroundings were reduced by more than 90%. With the problem eliminated, the company is now able to produce 24 hours a day, 7 days a week.



JIMCO A/S has supplied systems for the following food processing/production industries:

Crisps - onion rings - frying of spring rolls - chickens - meatballs - fish - "æbleskiver" - etc.



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The JIMCO FLO-P air cleaning system is patented under PCT/DK97/00182.

In February 2000 JIMCO A/S received the EU Environmental Award for Cleaner Technology for the development of the Photolytic Oxidation System.

The unique operation of the JIMCO FLO-P air cleaning system ensures that optimum cleaning of high temperature exhaust air is achieved.



JIMCO

UV-C & OZONE

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