

JIMCO KPC air cleaning system for commercial kitchens

JIMCO KPC A/S specialise in patented UV-C & Ozone Technology used for odour and grease destruction in the air passing through cooking canopies and ducts.

The KPC system uses special lamps that produce UV-C light and ozone. The lamps are mounted in a steel frame, which is installed behind the grease filters in the hood, or, in cases where this is not possible due to lack of space, in an enclosure immediately above the hood. Exposure to intensive UV-C light and ozone oxidation causes contaminants in the air to be destroyed resulting in the reduction of odour emissions to the surroundings and no grease depositing in the ductwork.



The end result is that odour and grease particles can no longer be detected in the air exhausted to the environment. A small quantity of excess of ozone is generated to destroy existing grease deposits in the ducts (over a long period of time) and to maintain the ducts in a clean condition. We recommend that ducts are manually cleaned before installing a KPC system.

The advantages of using a JIMCO KPC system means the traditional problems with this process are eliminated. Examples are: high chimneys, incineration ovens and thermic oxidants, bio filters/ peat layers, chemical scrubbers, activated carbon filters, deodorizing oils etc.



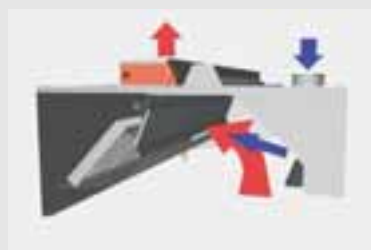
Advantages of using JIMCO air cleaning systems:

- Tested and dependable equipment
- Effective reduction of odours and organic compounds
- No use of chemicals or deodorizing oils
- No use of bacteria
- No residues or liquid substances
- Compact installation, needs only limited space
- Simple to install in existing hoods
- Immediate on/off function
- Pressure differential guard for fan failure
- Competitive installation costs
- Low operating and maintenance costs

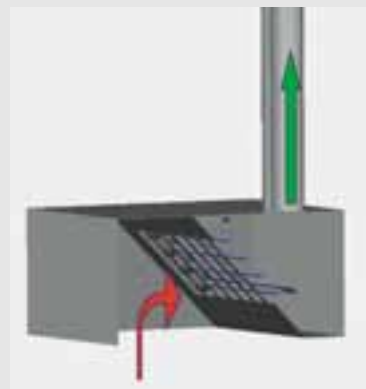
Technical data and dimensioning factors

When designing a JIMCO KPC system, 3 factors must be considered:

1. It is important that the type and number of KPC inserts fit the air volume passing through the individual hood (see table below). The area covered by the UV-C lamps should be as large as possible as all the air should pass over the lamps. The lamp inserts should be installed immediately behind the grease filters and parallel to the angle of the filters. If this is not possible due to lack of space in the hood, one or more inserts can be installed in an enclosure positioned at the exhaust opening in the hood or as close as possible.



2. It is also important that the air temperature in the hood does not exceed 45°C as this is the max. temperature for optimum performance. Should the temperature exceed 45°C it can be lowered using cooler secondary air.
3. The KPC insert must be installed so that the duct system following the lamp inserts gives a reaction time of min. 2 sec. This ensures complete oxidation of the contamination. This can be checked by calculating the air speed and the length of the duct.



The KPC insert consists of a steel frame mounted containing 4 UV-C lamps. These lamps produce UV-C light and ozone. There are two types: The KPC 1500-39-4 with 39W lamps that handle up-to 1500 M³/h or 420 L/sec. and the KPC 2000-79-4 with 79W lamps that handle up-to 2000 M³/h or 560 L/sec.



System	Air Flow-rate M ³ /h	Air Flow-rate L/sec.	Dim. in MM
KPC-1500-39-4	Air volume 1500 M ³ /h	Air volume 420 L/sec.	929 x 271 x 71
KPC-2000-79-4	Air volume 2000 M ³ /h	Air volume 560 L/sec.	1689 x 271 x 71

The control cubicle supplied with the system can control both 39W and 79W inserts. The cubicle must be installed in a ventilated room having an ambient temperature of max. 30°C.

The UV-C lamps have a lifetime of approx. 8000 operating hours after which they must be replaced to ensure continued efficiency.



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