AIR PURIFICATION AND DISINFECTION SYSTEMS

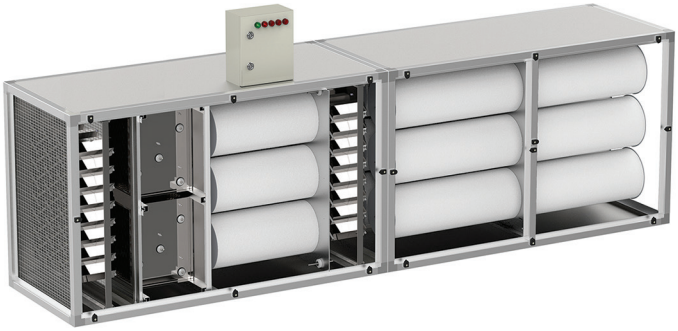
Solutions for kitchens

K-Line

For kitchens without open fire

KL-Line

For kitchens with open fire



Smoke and odor removal

AL K/KL-Line systems clean the air from smoke, carbon deposits, and all odors.

Air ejection on the building facade

Thanks to the high level of air purification AL K/KL-Line systems make it possible to eject kitchen exhaust air on the building facade even at ground floor level.

Reduction of operational costs

Savings on air ducts cleaning. Soot, grease, and carbon deposit are scrubbed by purifiers. Maintenance of AL K/KL-Lines systems is easier and less expensive than regular air duct cleaning.

Fire prevention

AL Hydrofilter (water spray hood) is used in open-fire kitchens where barbecues, tandoors, smokehouses, etc. operate. The equipment extinguishes sparks and reduces the exhaust air temperature protecting the restaurant from fire.

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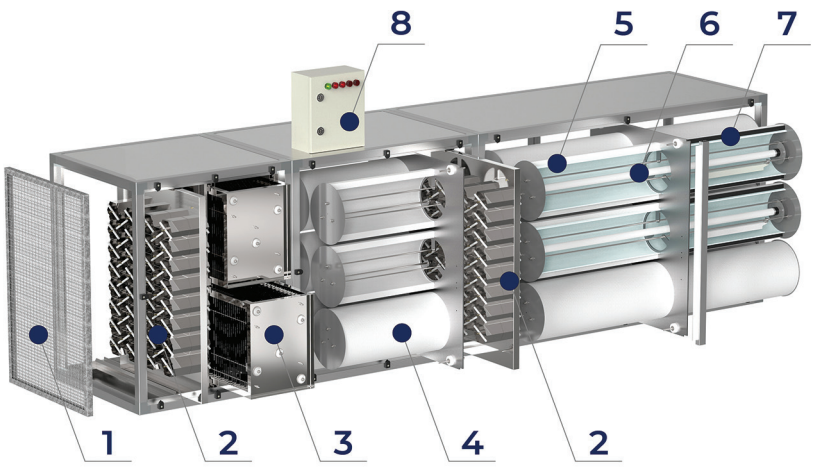

Basic characteristics

Ventilation capacity:	starting at 1'000 m³/h
Supply voltage:	230 / 400 V
Class of protection against electrical shock under IEC 61140:	I
Class of enclosure protection under IEC 60529:	IP 65
Working ambient temperature:	from -40 to +70 ˚C
Ambient relative air humidity for operation at 25 ˚C:	from 20 to 100%
Aerodynamic resistance clean filters / clogged filters (max):	
AL K-Line	350 / 550 Pa
AL KL-Line	500 / 750 Pa

Air cleaning efficiency

aerosols, smoke, soot, and carbon deposit:	99.9%
organic pollutants, including odors from the kitchen:	98.0%

Design overview

1. Pre-filter – This filter retains large particles of dust and ash. Filtration class is G2-G4 (EN 1822, EN 799).

2. Aerosol charging unit – The unit ensures a symmetrical electrostatic field inside the element and charges 99.8% of aerosols with sizes between 0.1-100 μm.

3. Plate precipitator – This element is designed to precipitate charged particles of oil larger than 50 μm.

4. Polarized electrostatic filter – This filter retains particles up to 0.1 μm in size with a filtration efficiency of 99.9% and minimal resistance to airflow.

5. Combined polarized photocatalytic filter – This filter traps particles up to 0.1 μm in size, adsorbs unpleasant odors, toxic chemical substances, allergens, viruses, bacteria, etc. The polarized filter causes the charged particles to precipitate, reaching a filtration efficiency of 99.9% and minimal airflow resistance.

6. UV-A emitters – UV-radiation provides energy for activating the photocatalyst.

7. Combined adsorption-catalytic filter – This filter prevents penetration of harmful substances by adsorbing them on the surface of the catalytically active, modified carbon sorbent. The joint action of adsorption and photocatalytic filtration stages makes the adsorbent catalytically effective, and it regenerates during operation.

8. Control and alarm unit. Optional unit for communication with a Building Management System (ModBus).

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