

Kitchen

Ecology Unit



For the Future of Health

FOCUS DOGU

With our R&D investments and competent team leading the HVAC sector, we are at the forefront of designing HVAC products that are **both human- and environmentally-friendly.**



KITCHEN
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GENERAL SPECIFICATIONS

Ideally manufactured for the kitchens with chimney problems. It is environmentally friendly. Principally it is ideally used in kitchens, hotels, hospitals, industrial facilities, business centers and offices.

- Economical and environmentally friendly solution
- Filter selection according to kitchen preference
- Up to 99% oil and smoke retention
- Optional galvanized and stainless steel
- Control accessibility through automation Long life expectancy
- Inside sheet metal is galvanized steel, optional stainless steel.
- 50 mm aluminum profile and 50 mm rock wool (density:52 kg/m3)
- Design outside the electrical motor airflow
- Ac plug fan
- High efficiency electrostatic filter(%95),Carbon Cartridge Filter
- Optional bag, activated v carbon filte, -v-uv filter
- Integrated automation system,
- Compatible operation with other kitchen exhaust units and BMS, Easy of maintenance and servicing



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COMPONENTS

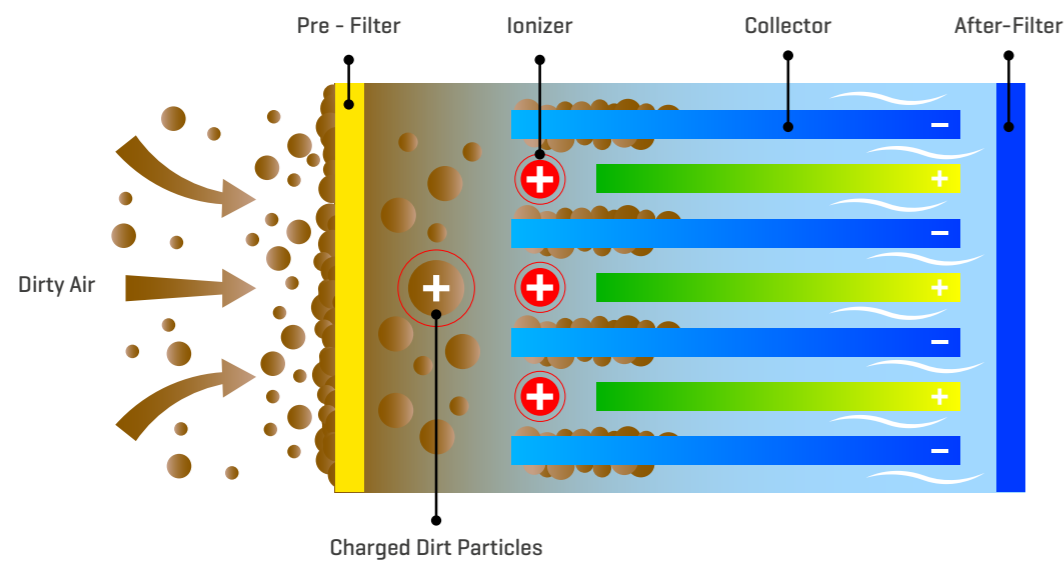
- ① CASING
- ② AIR INLET DUCT CONNECTION
- ③ ELECTROSTATIC FILTER
- ④ CARBON CARTRIDGE FILTER



- ⑤ SERVICE DOORS
- ⑥ EXHAUST FAN
- ⑦ AIR OUTLET DUCT CONNECTION

INTRODUCTION

KITCHEN Ecology units are ventilation equipment whose use is recommended in kitchen exhaust systems, which serve to clean greasy and dirty exhaust air. With the increase of environmental consequences in the 21st century, severe restrictions have been imposed on the release of industrial wastes to the environment, and particularly on the release of flue gas and kitchen exhaust systems to the atmosphere. With the introduction of the new residential concept in big cities, the rise in so-called “all-in-one” projects has led to some problems with air quality. This is because the concentrated kitchen exhausts from the large restaurants and dining areas in these projects have a negative impact on the daily functioning of people occupying the residential, office, and hotel areas that are in close proximity to these areas. In the absence of measures, the accumulation in ducts exhaust equipment of substances such as grease, soot and smut that are released during cooking raises fire risk to high levels later on. In addition to fire risk, the accumulation of these substances causes the intake fans and filters to be quickly clogged, the ducts to be quickly contaminated and consequently lead to a rapid rise in expenses.



MODEL NO	MODEL NAME	AHU MODEL	Max Airflow Rate(m3/h)	Electrostatic Filter Model and Number
1	FK-35	077-077	3500	FND-300 1 pcs
2	FK-50	093-077	5000	FND-500 1 pcs
3	FK-70	139-077	7500	FND-700 1 pcs
4	FK-100	093-124	10.000	FND-500 XX 1 pcs
5	FK-150	139-124	15.000	FND-700 XX 1 pcs
6	FK-225	139-186	22.500	FND-700 XXX 1 pcs
7	FK-300	186-186	30.000	FND-500 XXX 2 pcs

DESIGN CRITERIA

The most significant design criterion in the selection of ecology units is the type of catering establishment. Since the amount of grease, steam, and particles in the exhaust air will vary according to the type of food cooked, different models should be selected for various kitchens.

Thus, we can divide common catering establishment types under four main headings according to the density of odour and grease. This classification as low, medium, high, and very high density kitchen types can be seen in the following table.

ROOM TYPE	ODOUR DENSITY				GREASE DENSITY			
	LOW	MEDIUM	HIGH	VERY HIGH	LOW	MEDIUM	HIGH	VERY HIGH
CAFE	✓				✓			
PIZZA		✓				✓		
STEAKHOUSE		✓				✓		
BAR/BISTRO		✓				✓		
RESTAURANT		✓				✓		
FAR EASTERN CUISINE			✓				✓	
INDIAN			✓				✓	
THAI			✓				✓	
VIETNAMESE			✓				✓	
TURKISH CUISINE			✓				✓	
FAST FOOD				✓				✓

In the light of these information; different levels of control are being applied for different concentrations of odour and grease. Despite there are other evaluation criteria, these control methods of odour and grease can simply be listed as:

Low Concentration: Standard kitchen exhaust fans suitable for continuous high temperature operation would be sufficient.

Medium Concentration: Electrostatic precipitator followed by carbon filtration with 0.1 second contact period.

High Concentration: Two stage electrostatic precipitator followed by carbon filtration with minimum 0.2 second contact period.

High Concentration: Two stage electrostatic precipitator followed by carbon filtration with minimum 0.2 second contact period.

SUSTAINABILITY SOLUTIONS AT DOĞU HVAC



GOOD HEALTH and WELL-BEING

We offer supplementary health insurance to our employees to promote healthy living. We also plan health-focused initiatives such as smoking cessation programs.



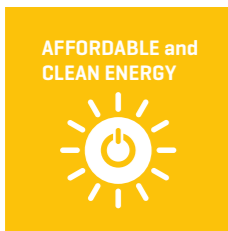
QUALITY EDUCATION

Through the DOĞU HVAC CLUB project, we organize technical tours of our factory, participate in career events, and provide sponsorships to support the skill development of university and technical high school students.



GENDER EQUALITY

In 2024, we increased female employment in our administrative and production departments. This step aims to contribute to gender equality by offering a workplace with equal rights for all employees.



AFFORDABLE and CLEAN ENERGY

Our R&D center's 2,500 m² solar panels and 0.6 MW annual capacity solar energy systems reduce our carbon footprint. We generate our electricity, ensuring a reliable, sustainable, and accessible clean energy source.



DECENT WORK and ECONOMIC GROWTH

Decent Work and Economic Growth: As an employer brand, our primary goal is to protect our employees' rights and create a workplace founded on equality and justice for all employees.



SUSTAINABLE CITIES and COMMUNITIES

We enhance indoor air quality with environmentally friendly and energy-efficient products, ensuring adherence to European standards.



RESPONSIBLE CONSUMPTION and PRODUCTION

We minimize waste through lean production policies and emphasize recycling, simultaneously increasing efficiency in our production processes.



CLIMATE ACTION

We support environmental protection through our eco-friendly, sustainable, energy-efficient product lines and R&D efforts focused on reducing waste that could contribute to climate change.



PEACE, JUSTICE and STRONG INSTITUTIONS

We value transparency and accountability, working with associations like İSKAV to prevent corruption and unfair competition, aligning with sectoral ethical values.

Venues Breathe With Us



Read to watch our
promotional video