



Leader in Industrial and Kitchen Emissions Control...



EURUS ESP *Series Ecology Units*



EURUS IS THE EAST WIND IN ANCIENT AGES

Minimum space requirement. Maximum filtration efficiency.

AES using electrostatic air cleaners, has been providing solutions for;

- ✓ Industrial emissions control since 1992,
- ✓ Kitchen emissions control since 2011.

Benefits of **EURUS** Ecology Units:

- Using EURUS ecology units will help preventing complaints and having a “good neighbour” image by providing smoke & odour free exhaust air.
- If there is no existing exhaust system, it is not a problem; EURUS ecology units do not require any exhaust ducts. Filtrated air can be exhausted directly through a wall louver.
- Thanks to having an optimized modular structure, units can be installed by occupying minimum space. Instead of common mono-block units, EURUS units can be installed separately to provide flexibility.



Areas of Usage

- ✓ RESTAURANTS AND CAFES
- ✓ SHOPPING MALL FOOD COURTS
- ✓ HOTELS
- ✓ THEME PARKS
- ✓ STADIUMS
- ✓ FOOD PRODUCTION FACILITIES



WHY CHOOSE *EURUS*?

- Provides superior efficiency in oil smoke particle filtration, especially for fine submicron particles.
- Not only for kitchen emissions control but also can be used for many other manufacturing processes.
- EURUS combines cost advantages with environmental sensitivity.
- Washable aluminum alloy filter components can be cleaned and reused for decades.
- Having low static pressure drops reduces energy costs compared to multi-staged mechanical filters.
- Due to not requiring long exhaust ducts, it reduces initial investment and labouring costs.
- Low noise emissions.
- Easy maintenance and cleaning.



- Flexible installation due to its modular structure.
- Different configurations are available for different cooking types and emission intensity levels.
- Suitable for continuous operation.
- Since ESP unit is installed before activated carbon and blower modules, it extends their replacement/maintenance periods, which reduces operational expenses.
- Thanks to reducing oil accumulation in ducts, it lowers fire risks significantly.



HOW IT WORKS?

Filter Units:

1 – Aluminum Mesh Pre-Filter

As contaminated air passing through the ESP, it is first screened by a mechanical pre-filter which removes large particles.

2 – Ioniser

Then, the air passes through the uniquely designed aerofoil ioniser where it is subjected to an intense electrostatic field which charges the particles in the airstream.



3- Collector

These charged particles then enter the collecting cell to be collected by electrical field generating oppositely charged plates.

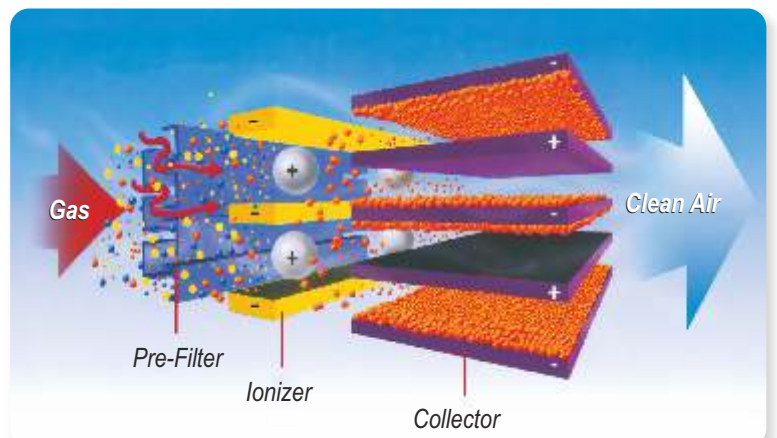
4 - Aluminum Mesh After-Filter

An after-filter improves air distribution and collection efficiency by trapping any agglomerated contaminants which might become dislodged from the cell.

Air free from oil smoke passes through activated carbon filter for odour control, then exhausted by the blower at the end.

Captured oil smoke particles accumulate on collector plates and have liquid form; then cleaned by removing and washing the filter components. Washed filter components are replaced and continue to be used.

Power for the EURUS ESP is provided by a state of the art power supply. IEC safety switch fitted to all models. Low-energy, self-regulating power supplies adjust the voltage according to pollution density and ensure safe and continuous operation at the highest efficiency level. Having low energy consumption, these power supplies are extremely safe in terms of operation and maintenance.



FILTRATION SYSTEM SUPPLEMENTARY ACCESORIES...

Activated Carbon Filter For Odour Filtration

- Used after EURUS ESP unit for eliminating odour.
- After oil smoke is eliminated by ESP unit, partially remained odour is filtrated by activated carbon (AC) module.
- For a particular airflow capacity, the number of the AC cassettes changes according to cooking type, intensity and odour sensibility at the exhaust shaft. Every AC cabinet structure allows cassette racks to be changed which makes possible to increase air contact time from the standard time of 0.1 to 0.2 seconds. According to project requirements, for instance, for a heavy duty kitchen, with two staged AC module each having 0.2s contact time, 0.4s total contact time can be achieved.
- Cassettes are replaced when they are polluted and odour feeling at the exhaust point is increased. Replacement periods vary according to kitchen emission type, cooking intensity and working hours.



- Commonly used cartridge filters have two different cylindrical surface areas. In general use, air passes through inner surface to outer surface, causing different air velocities throughout the 35mm thick cartridge media. EURUS AC cassettes have 50mm thickness and their inner and outer surfaces are the same. Therefore, air velocity does not change and air passes homogenously throughout the 50mm thick media. In addition, for the same airflow capacity and air contact time, EURUS AC cassettes contain about 10% more activated carbon mass compared to cartridges while used much less in quantity, thanks to our optimized V-bank and cassettes design. All these factors lead to much higher efficiency while reducing the initial investment and periodic replacement costs compared to cartridges.

Other Accessories and Options:

- Non destructive washing detergent for aluminum alloy filter components,
- All spare parts can be necessary for EURUS ESP units,
- Spare cassettes for activated carbon module,
- Complete with steel support frames to provide enough clearance for drains outlet,
- Automation panel including variable frequency drive (VFD) and electrostatic filter pollution monitoring & warning system (If required; remote controlling from BMS via protocols BACNET, MODBUS etc. and fire-mode features are available with HVAC range VFD's),
- Fresh air supply fans,
- Droplet separator for coarse particles,
- Wet scrubbers for solid fume use to provide prefiltration for emissions such as ash, soot etc. and precaution for sparks (hood baffle plates are always recommended to prevent sparks which may ignite greasy air ducts). AISI 316 quality stainless steel option is available for wood use.
- Different colour options are available if required. (With additional costs)

AS YOUR SOLUTION PARTNER...



360 Çamlıca Tower Cafe Restaurant



Çamlıca Tower

As Your Solution Partner in Kitchen Emissions Control, We Are Providing Services Given Below:

- If you share kitchen layout and cooking equipment information, we can help you with air flow calculation and determine system capacity. Odour sensitivity at discharging point is also required (e.g. residential area with flats over restaurant) to offer the most convenient system configuration.
- Technical support for determining correct duct section dimensions; calculating pressure drops according to duct route and choosing the fan - motor combination accordingly.
- Inspection and determination of air filtration system requirements for running facilities.
- Commissioning, user training and cleaning/maintenance services.



Çamlıca Tower - EURUS Ecology Unit

INDUSTRIAL AIR POLLUTION CONTROL APPLICATIONS OF AES...

Since 1992, especially in automotive industry and in many other manufacturing facilities; **AES** has been providing successful air pollution control solutions for problems such as;

- Oil mist/fume from machining,
- Oil smoke from metal injection moulding and friction presses,
- Smoke and dust from welding, grinding etc.,

For industrial applications, you can visit our website and view our brochure.



Let **EURUS** clean your air for a healthier work atmosphere and a cleaner world. We are at your service for optimized solutions reflecting **AES** expertise and experience.



Single Source Solution

At AES we understand the need for an exceptional partner - from concept to installation. That's why AES offers a single-source solution from conceptual design to after sales service. Our capabilities include;

- Consultancy,
- System design,
- Engineering development,
- Production,
- Installation,
- Commissioning and training,
- Aftersales services and supply of spares.

Contact us for our wide product range from a single emission to plant wide solutions for oil mist, fume and dust filtration.

Head Office and Plant

IMES OSB 8. Cad. No:6 Çerkesli, Dilovasi, Kocaeli - Turkey
Tel: 0262 502 17 30 Fax: 0262 502 18 66
E-mail: info@aesacar.com www.aesacar.com



**EURUS FOR CLEAN WORKPLACES AND
CLEANER ENVIRONMENT**