

The background of the page is a photograph of a commercial kitchen. A chef in a white uniform is cooking with a large flame on a stove. In the foreground, there are several red and yellow bell peppers. A red rectangular box is overlaid on the lower left portion of the image, containing the text "COMMERCIAL KITCHEN EXHAUST FILTRATION SYSTEM".

COMMERCIAL KITCHEN EXHAUST FILTRATION SYSTEM

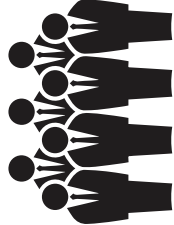


ABOUT MAYAIR

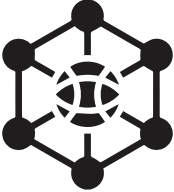
MayAir Group, established in 2001, is a leading global manufacturer, developer, and service provider of air purification equipment and clean air solutions. The company specializes in air filtration research and development, design and construction, production, distribution, installation, and service maintenance of clean air solutions for industrial, commercial, and residential sectors.

The group's core business has historically focused on providing HVAC filters, Fan Filter Units (FFUs), and air filtering equipment for industrial cleanrooms, making it one of the leading global providers in this field. With a team of a few hundred world-class engineers, MayAir has established itself as one of the pioneers in air filtration product manufacturing, operating multiple manufacturing plants across the globe. With solid foundations and achievements in the air filtration industry across Asia, the company is rapidly expanding into the United States, Europe, the Middle East, and other parts of the world.

With over 20 years of experience, MayAir has proven itself a highly reliable company and developer of adequate air filtration equipment and clean air solutions. The company's commitment to continuous breakthroughs and innovation ensures that it can offer a full spectrum of clean air solutions to various business segments, particularly in cleanrooms for the semiconductor, pharmaceutical, data center, power plant, electrical and electronic, and biomedical industries, among others.



COMPANY
EMPLOYEES
900+



SALES
OFFICES
30+



MANUFACTURING
BASES
9



R&D
CENTERS
4

DIVERSIFIED PRODUCT RANGES & COMPREHENSIVE SOLUTIONS

APPLICATIONS



Commercial Kitchen



Data Center



Semiconductor



Automobile



Industrial



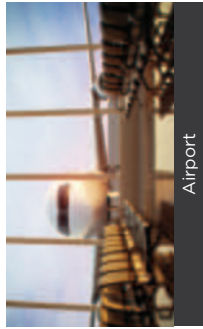
Healthcare Facilities



Power Plant



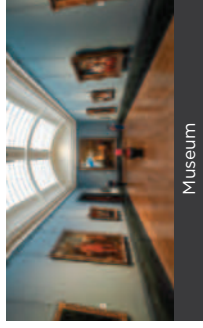
Residential



Airport



Metal Processing



Museum



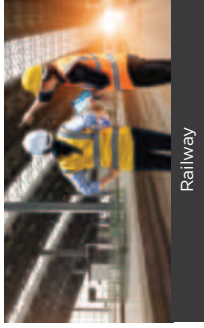
Commercial Building



Pharmaceutical



Paper Pulp



Railway



Tunnel

UPGRADE AND TRANSFORM KEU EXHAUST: STANDARD STEPS

STEP 1: ON-SITE INSPECTION

Determine the smoke exhaust air volume:

The principle is that the air volume of the fume purifier should ideally be slightly more significant than that of the smoke exhaust fan.

The following calculation methods can be applied based on the actual situation, and the more substantial value can be considered as a reference:

- **Fan air volume method (measured method):** For renovations with unknown fan specs
- **Hood length method (empirical value):** $Q=K \times B$ (K: 1800-3000m³/h, B: hood length in meters)
- **Stove number method (national standard method):** $Q=n \times 2000$ (n is the number of stoves)
- **Smoke exhaust hood suction side length method:** (Design manual, technical method) - $Q \geq 1000 \times P \times H$ (P: hood perimeter in meters (not adjacent to the wall), H: height from hood surface to stove in meters)
- **Smoke exhaust hood ISO velocity surface method:**
(Design manual + experimental method) - $Q=1.4 \times v \times P \times H \times K \times 3600$

P	Perimeter of the smoke exhaust hood, in meters
H	Height from the smoke exhaust hood to the stove, in meters
V	Capture wind speed taken at 0.2 to 0.5m/s
K	Leakage coefficient, taken at 1.0 to 1.15

- **Air exchange rate method (new construction projects, design institute method):**
 $Q=A \times H \times n$ (A: kitchen area in square meters, H: kitchen height in meters, n: Number of air exchanges)

Chinese restaurant	40-50 times / hour
Western restaurant	30-40 times / hour
Staff canteen	25-35 times / hour
- **Confirmation of specific emission standards on site:**
Confirm specific emission standards on-site, considering different cuisines and customer requirements to select appropriate purification equipment and combinations.
- **Confirmation of site space:**
Record approximate installation positions of equipment and spatial conditions.

STEP 2: SCHEME CONFIRMATIONVEY

Based on the on-site survey, design a reasonable oil fume exhaust plan. The plan should reflect standards, design concepts, equipment selection, installation plans, cleaning and maintenance procedures and pricing.

STEP 3: CONSTRUCTION INSTALLATION

Strictly adhere to construction standards, paying attention to the following aspects:

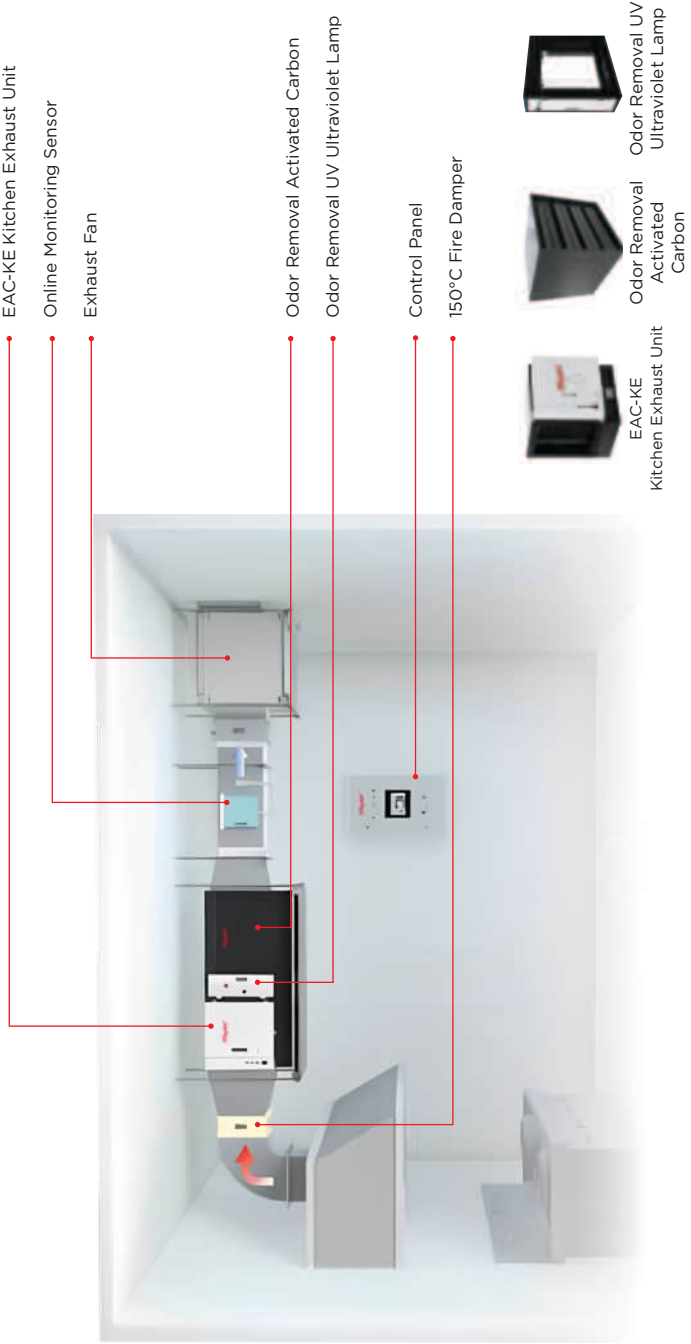
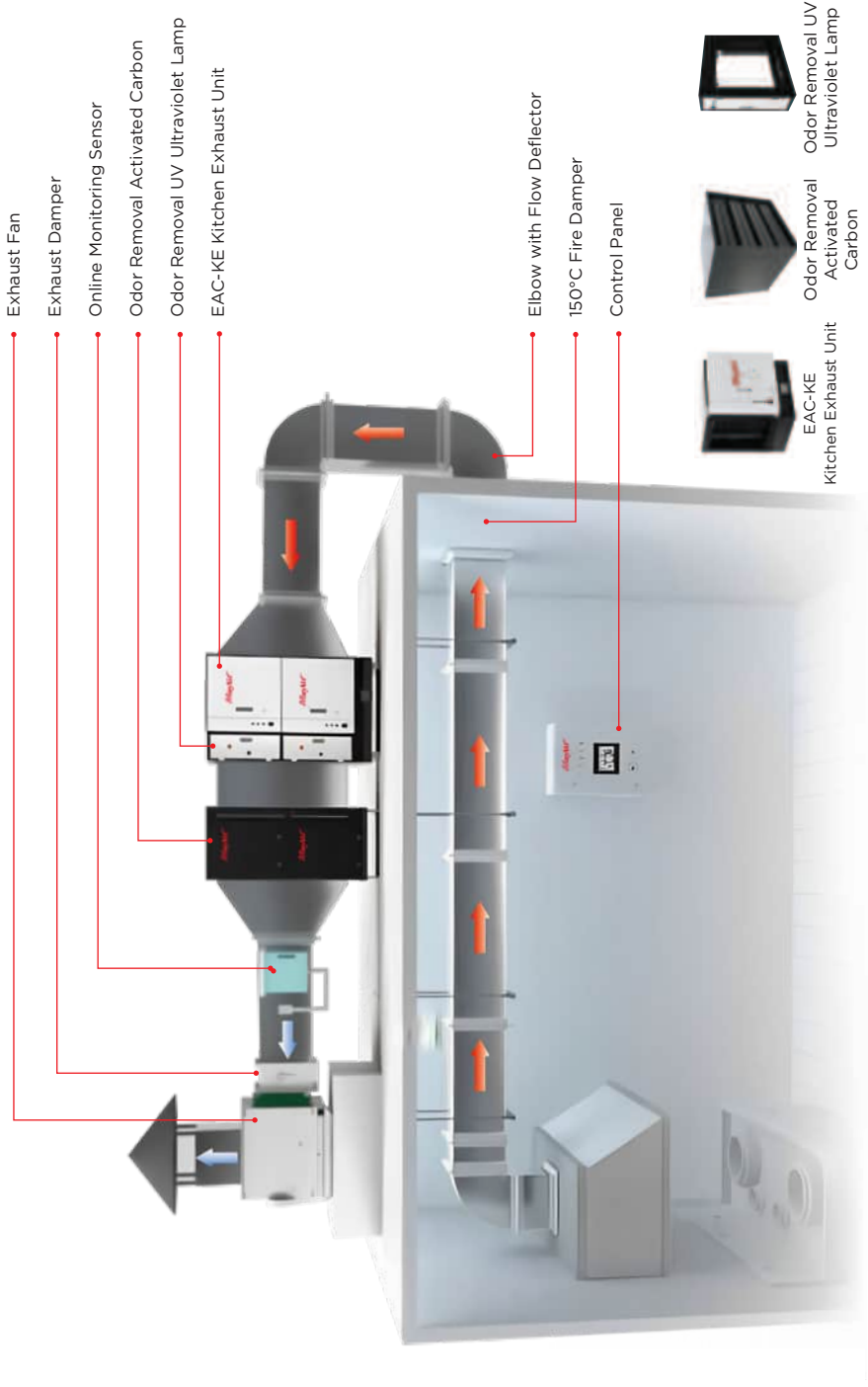
- Proper treatment of airflow in duct diameter changes
- Handling of bends in ducts
- Ensuring tight seals at flange connections
- Proper drainage and oil treatment in ducts
- Prevention of pests at exhaust outlets
- Secure fixing of pipelines
- Proper foundation treatment for equipment
- Ensuring safety in electrical wiring

STEP 4: COMMISSIONING, ACCEPTANCE AND TESTING

After installing the equipment, conduct strict commissioning and acceptance by the regulations. Based on requirements, consider third-party testing to verify if the emission concentration meets standards. The third-party testing unit should be a legitimate organization with CMA qualifications.

STEP 5: CLEANING AND MAINTENANCE

Oil fume emissions compliance depends on the purification equipment: fans, pipes, and installation and dramatically relies on regular cleaning and maintenance. Regular cleaning and maintenance of the purification equipment and pipes ensure the long-term efficiency of the equipment and continuous stable compliance at exhaust outlets.





SMART FACTORY
MANUFACTURING

MayAir Automated Production Line for Kitchen Fume Equipment





Automated Processing

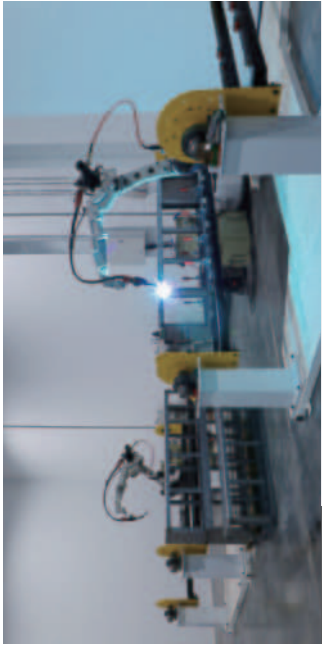
01





Automated Sheet Metal Leveling

02





Automated Welding

03





Deburring

04





Automated Assembly Line

05



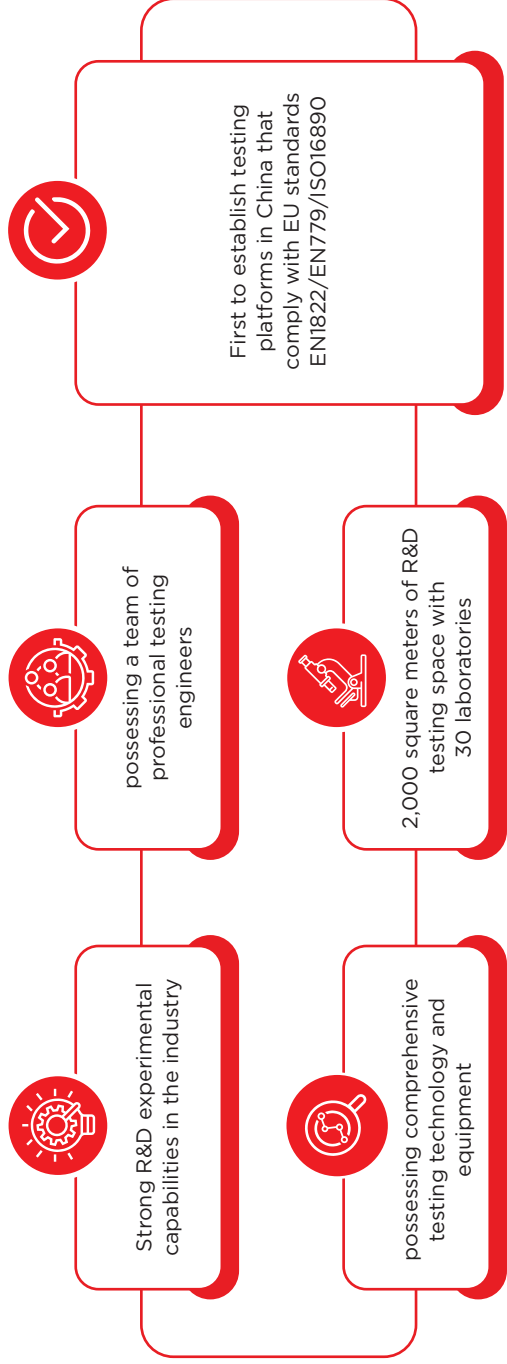


Safety Compliance Inspection

06



CNAS-ACCREDITED
LABORATORY



Related Experimental Demonstrations Of Oil Fume Equipment



Efficiency/ Resistance/ Ozone testing



Electrical aging testing



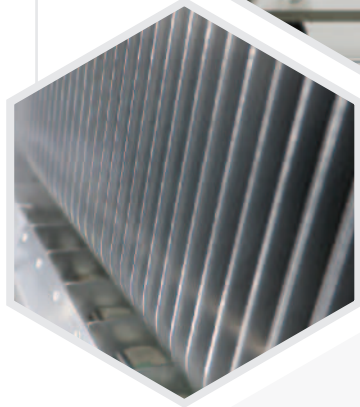
Acid and alkali resistance testing



Fireproof/ Waterproof testing



THE CORE HIGH-VOLTAGE IONIC CELL



01 CNC Forming

- Fully automated process
- Plate flattening, resistant to deformation
- Reduces arc discharge



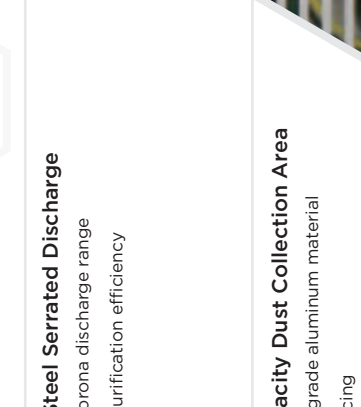
02 Stainless Steel Conductive Spring

- 304 material
- Better and more stable conductivity



03 Spiral Large Ceramic

- High-quality high-voltage insulation
- Temperature and pressure-resistant
- Increased creepage distance



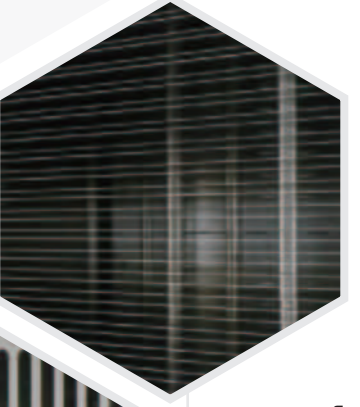
04 Stainless Steel Serrated Discharge

- Increases corona discharge range
- Enhances purification efficiency



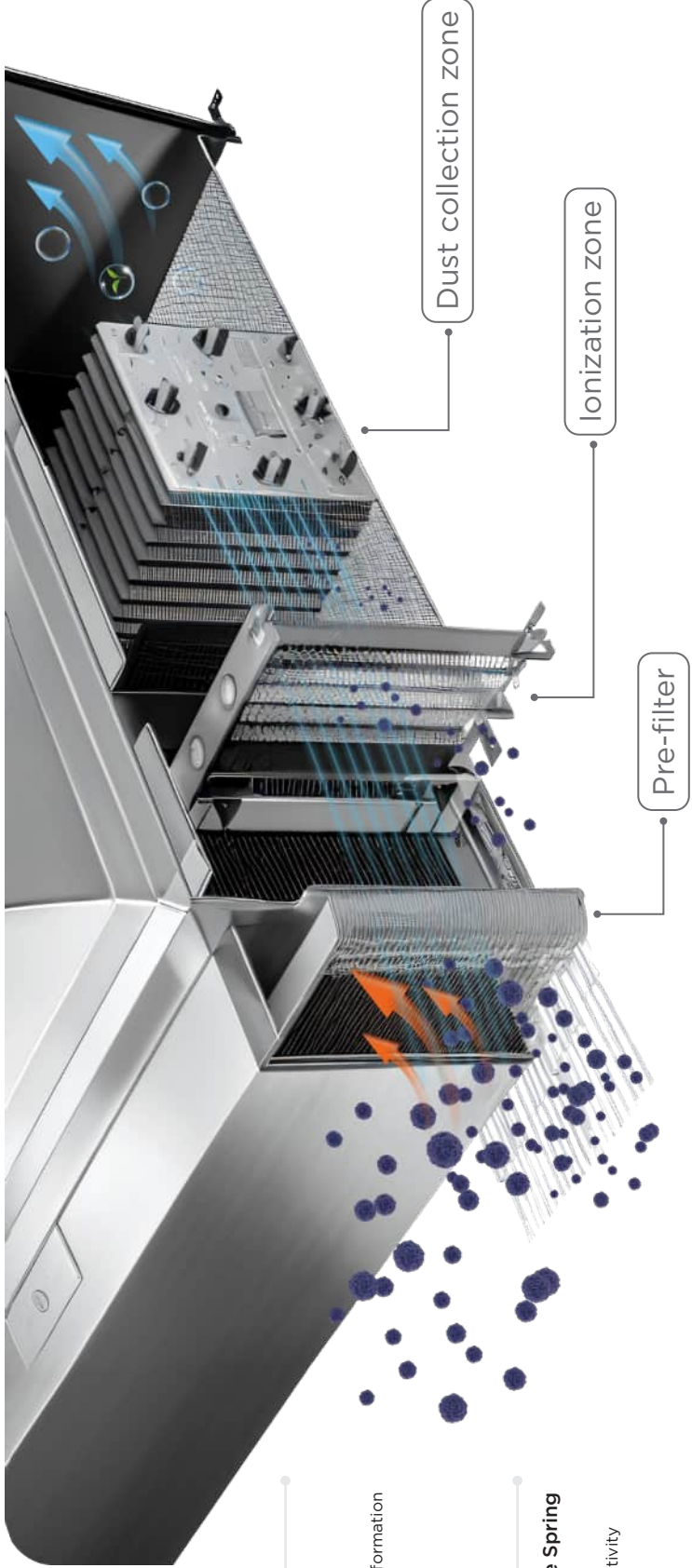
05 Large-Capacity Dust Collection Area

- Aerospace-grade aluminum material
- Parallel spacing
- Low resistance
- Highly efficient collection of oil fumes and particles
- Industrial-grade pull ring for easy maintenance, resistant to deformation



06 High-Voltage Intelligent Power Supply (Optional) Positioning And Tracking, Enabling Full Lifecycle Traceability

- Wide voltage input with stable high-voltage output
- Real-time display of high-voltage power supply operating status
- Multiple protections, including arc extinguishing, open circuit, and short circuit protection
- Features such as device positioning, intelligent diagnostics, remote maintenance, and data analysis



Authoritative Certification



Underwriters Laboratories (UL) in the United States



EU mandatory safety certification for electronic and electrical equipment



American Society of Heating, Refrigerating and Air-Conditioning Engineers



EU CE safety certification mark



China Environmental Protection Product Certification



China National Accreditation Service for Conformity Assessment



Electromagnetic compatibility certification



Dustproof and waterproof rating certification



China Metrology Accreditation





COMMERCIAL KITCHEN EXHAUST FILTRATION SYSTEM

EAC-KE KITCHEN EXHAUST UNIT (S SERIES)



PRODUCT FEATURES

- PWM bipolar steady-state power module control
- Our power module ensures superior efficiency and stability with a powerful ionization stage voltage of 12,000 V and a reliable dust collection stage voltage of 6,000 V
- Stainless steel ionization plates are used in the ionization zone, while aluminum alloy dust collection plates are used in the dust collection zone, resulting in a longer lifespan
- Automatic door-triggered power cut-off enhances safety
- Large ceramic blocks for insulation provide better insulation effectiveness, ensuring safety and reliability.
- Equipped with operational, cleaning alarms, fault alarms, and signal indicators.Equipped with IP55 protection

PARAMETER TABLE

Equipment Model		EAC-KE-01-01-H(L)	EAC-KE-01-02-H(L)	EAC-KE-01-03-H(L)	EAC-KE-01-04-H(L)	EAC-KE-01-05-H(L)
Purification Efficiency ≥90%	Rated Airflow (CMH)	4,800	9,600	14,400	19,200	24,000
	Pressure Drop (Pa)	200	200	200	200	200
Purification Efficiency ≥97%	Rated Airflow (CMH)	3,000	6,000	9,000	12,000	15,000
	Pressure Drop (Pa)	60	60	60	60	60
External Dimensions W x H x D (mm)		630 x 660 x 550	630 x 1200 x 550	630 x 1740 x 550	630 x 2280 x 550	630 x 2820 x 550
Power (W)		65	130	195	260	325
Weight (kg)		51	93	135	177	219

Equipment Model		EAC-KE-02-01-H(L)	EAC-KE-02-02-H(L)	EAC-KE-02-03-H(L)	EAC-KE-02-04-H(L)	EAC-KE-02-05-H(L)
Purification Efficiency ≥90%	Rated Airflow (CMH)	9,600	19,200	28,800	38,400	48,000
	Pressure Drop (Pa)	200	200	200	200	200
Purification Efficiency ≥97%	Rated Airflow (CMH)	6,000	1,2000	18,000	24,000	30,000
	Pressure Drop (Pa)	60	60	60	60	60
External Dimensions W x H x D (mm)		1090 x 660 x 550	1090 x 1200 x 550	1090 x 1740 x 550	1090 x 2280 x 550	1090 x 2820 x 550
Power (W)		95	190	285	380	475
Weight (kg)		75	141	207	273	339

Equipment Model		EAC-KE-03-01-H(L)	EAC-KE-03-02-H(L)	EAC-KE-03-03-H(L)	EAC-KE-03-04-H(L)	EAC-KE-03-05-H(L)
Purification Efficiency ≥90%	Rated Airflow (CMH)	14,400	28,800	43,200	57,600	72,000
	Pressure Drop (Pa)	200	200	200	200	200
Purification Efficiency ≥97%	Rated Airflow (CMH)	9,000	18,000	27,000	36,000	45,000
	Pressure Drop (Pa)	60	60	60	60	60
External Dimensions W x H x D (mm)		1550 x 660 x 550	1550 x 1200 x 550	1550 x 1740 x 550	1550 x 2280 x 550	1550 x 2820 x 550
Power (W)		125	250	375	500	625
Weight (kg)		99	189	279	369	459



Equipment Model		EAC-KE-04-01-H(L)	EAC-KE-04-02-H(L)	EAC-KE-04-03-H(L)	EAC-KE-04-04-H(L)	EAC-KE-04-05-H(L)
Purification Efficiency ≥90%	Rated Airflow (CMH)	19,200	38,400	57,600	76,800	96,000
	Pressure Drop (Pa)	200	200	200	200	200
Purification Efficiency ≥97%	Rated Airflow (CMH)	12,000	24,000	36,000	48,000	60,000
	Pressure Drop (Pa)	60	60	60	60	60
External Dimensions WxHxD (mm)		2010 x 660 x 550	2010 x 1200 x 550	2010 x 1740 x 550	2010 x 2280 x 550	2010 x 2820 x 550
Power (W)		155	310	465	620	775
Weight (kg)		125	238	351	464	577

Equipment Model		EAC-KE-05-01-H(L)	EAC-KE-05-02-H(L)	EAC-KE-05-03-H(L)	EAC-KE-05-04-H(L)	EAC-KE-05-05-H(L)
Purification Efficiency ≥90%	Rated Airflow (CMH)	24,000	48,000	72,000	96,000	120,000
	Pressure Drop (Pa)	200	200	200	200	200
Purification Efficiency ≥97%	Rated Airflow (CMH)	15,000	30,000	45,000	60,000	75,000
	Pressure Drop (Pa)	60	60	60	60	60
External Dimensions W x H x D (mm)		2470 x 660 x 550	2470 x 1200 x 550	2470 x 1740 x 550	2470 x 2280 x 550	2470 x 2820 x 550
Power (W)		185	370	555	740	925
Weight (kg)		149	286	423	560	697

General Description	
Input Power	220V / AC / 1P / 50 / 60Hz
Status Display	Operation, fault, cleaning
Maintenance Instructions	The equipment can be oriented to the left or right depending on the available site space, facilitating side maintenance. A minimum of 640 mm space should be reserved on one side for maintenance purposes.

Notes: If the purification efficiency is ≥90%, the model suffix is "H"; if the purification efficiency is ≥97%, the model suffix is "L".
An oil collection tray and support legs are configured at the bottom.



GLOBAL CLEANTECH SOLUTIONS PROVIDER

www.mayairgroup.com | www.mayair.com.my | www.mayair.us

Corporate Headquarters (HQ)

MayAir Manufacturing (M) Sdn. Bhd.

No.35, Jalan P4/6, Seksyen 4, Bandar Teknologi Kajang,
43500 Semenyih, Selangor, Malaysia.

Tel : +603-8210-7373
Fax : +603-8210-7337
Email : info@mayair.com.my

MayAir (Thailand) Co. Ltd.

343, Neighbour Center, Room 107 1st Floor,
Watcharaphol Road, Tha Raeng, Bangkok,
Bangkok, 10220, Thailand.

Tel : +66-02-004-9686

MayAir Singapore Pte. Ltd.

No.63, Jalan Pemimpin,
#03-02, Singapore 577219, Singapore.

Tel : +65-6275-7068

MayAir Inc.

698 12th Street SE STE 200,
Salem, OR 97301, United States.

Tel : +1 (424) 502-9199

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Authorized Representative:

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