

YOUR PARTNER IN AIR **TECHNOLOGIES** 











# **Notes**

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Established manufacturing in Germany in 2014, EuroVentus has rapidly emerged as a leading provider of Ventilation, Air Conditioning, and Indoor Air Quality (IAQ) technologies. With manufacturing facilities strategically located in Germany Spain, Italy, and Russia, alongside assembling facilities in Kuwait, the UAE, and various other locations across Europe and Asia, EuroVentus boasts an expansive network that enables stringent quality control and prompt delivery to clients worldwide

EuroVentus distinguishes itself as the pioneer in offering comprehensive Ventilation, Air Conditioning, and IAQ solutions. Leveraging thousands of cuttin edge fans and various other systems, we ensure optimal air quality and safety across diverse settings. From standard systems to specialized solutions tailored for oil and gas fields and emergency smoke extraction, EuroVentus delivers versatile, dependable, and eco-friendly solutions

In addition to our global footprint, EuroVentus maintains offices and showrooms across Europe, Asia, and the Middle East. With branches in Germany, Kuwait, the UAE, and Italy, we provide comprehensive Ventilation, Air Conditioning, and IAQ solutions catering to domestic, commercial, industrial, and specialized applications

Driven by a commitment to excellence and innovation, EuroVentus places utmost priority on customer satisfaction and environmental sustainability. Our team of professionals is devoted to delivering high-performance, cost-effective solutions meticulously tailored to meet the unique needs of each client and application

## **WALL MOUNTED AXIAL FANS**



XWF: IP54, IP55, Class F, Working temperature -25°C / +60°C, Anti Corrosive finish with polyester resin & Range (1,300 cmh to 54,000 cmh) (Atex Optional) Applications: Workshops, **Electrical Rooms & Warehouse.** 



XWF/65: IP65, Class F, Working temperature -25°C / +60°C, Anti Corrosive finish with polyester resin & Range (1,250 cmh to 18,700 cmh) (Atex Optional) **Applications: Workshops, Electrical** 

**Rooms & Warehouse** 





XWF/K: IP54, Class B and F. Working temperature -30°C / +60°C Anti-Corrosive finish with polyester resin & Range (2000 cmh to 38,000 cmh)

**Applications: Workshops, Electrical Rooms & Warehouse** 



XLS: IP55, Class F, Working temperature -25°C / +50°C, Anti Corrosive galvanized sheet steel & Range (100 cmh to 43,000 cmh)

**Applications: Farms & Agricultural** Places.



## **DUCTED AXIAL FANS**



XBF: IP55, Class F, Working temperature -25°C / +150°C, Anti Corrosive with heat protection paint & Range (1,600 cmh to 21,700 cmh) (Atex Optional)

**Applications: Commercial Kitchen Ventilation & Industrial Spray Booths** 



XCF/65: IP65, Class F, Working temperature -25°C / +60°C, Anti Corrosive finish with polyester resin & Range (2,400 cmh to 18,700 cmh) (Atex Optional) **Applications: Paint spray booths** 

Welding booths & Restaurants.





XCF/K: IP55, Class F, Working temperature -25°C / +50°C, Anti Corrosive finish with polyester resin & Range (1,000 cmh to 72,450 cmh) (Atex Optional)

**Applications: Commercial Kitchen** Ventilation & Industrial Spray **Booths** 



XLX: IP55, Class F, Working temperature -25°C / +150°C, Anti -Corrosive finish with polyester resin & Range (2,500 cmh to 68,000 cmh) (Atex Optional)

Applications: Kilns, steel mills, and forges & Paper mills.





XMF: IP55, Class F, Working temperature -25°C / +50°C, Anti Corrosive finish with polyester resin & Range (3,100 cmh to 17,000 cmh) (Atex Optional)

**Applications: Commercial Kitchen Ventilation & Industrial Spray Booths** 



EMX/K: IP55, Class F, Working temperature -25°C / +50°C, Anti-Corrosive finish with polyester resin & Range (3,400 cmh to 56,500 cmh) (Atex Optional)

**Applications: Commercial Kitchen Ventilation & Industrial Spray Booths** 



## **CABINET / BOX FANS**



KBF: IPX4, Class F, Working temperature -25°C / +80°C & Range (1,500 cmh to 4,390 cmh)

Applications: Commercial Kitchen Ventilation



KBF-ISO: IPX4, Class F, Working temperature -25°C / +120°C & Range (1,650 cmh to 9,420 cmh)

Applications: Commercial Kitchen Ventilation



KVC: IPX4, Class F, Working temperature -25°C / +80°C & Range (275 cmh to 3,300 cmh)

Applications: Offices, public buildings, factories, retail stores and schools.



UTF/K: IPX4, Class F, Working temperature -25°C / +120°C & Range (3,000 cmh to 8,500 cmh)

**Applications: Commercial Buildings** 

### **ROOF FANS**



KRF: IPX4, Class F, Working temperature -25°C / +120°C, Weather proof aluminium & Range (1,430 cmh to 15,300 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.



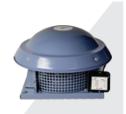
URF: IPX4, Class F, Working temperature -25°C / +120°C, Weather proof aluminium & Range (4,800 cmh to 13,300 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.



KRF-ISO: IPX4, Class F, Working temperature -25°C / +120°C Weather proof aluminium & Range (1,430 cmh to 15,300 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.



SRF: IPX4, Class F, Working temperature -25°C / +80°C, Weather proof aluminium & Range (460 cmh to 9,600 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.



KVR/A: IPX4, Class F, Working temperature -25°C / +80°C, Weather proof aluminium & Range (275 cmh to 3,300 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.



KVR/B: IP54, Class F, Working temperature -30°C / +60°C, Weather proof aluminium & Range (560 cmh to 1,700 cmh)

Applications: Kitchen Hoods & Restaurant & Workshops.

## **DOMESTIC INLINE FANS**



EM: IPX5, Class F, Working temperature -25°C / +60°C, Anti Corrosive and weather resistant plastic housing & Range (125 cmh to 3,300 cmh)

Applications: Commercial Public Toilets



EL-EC: IPX4, Class F, Working temperature -25°C / +80°C & Range (7,120 cmh to 20,200cmh)

Applications: Commercial Public Toilets & Fresh Air



EL/K: IP54, Class F, Working temperature -25°C / +80°C & Range (920 cmh to 13,940 cmh)

Applications: Commercial Public Toilets, Kitchens & Fresh Air



KV: IPX4, Class F, Working temperature -25°C / +80°C & Range (275cmh to 3,300 cmh)

Applications: Commercial Public Toilets, Kitchens & Fresh Air

### **CENTRIFUGAL FANS**



CFI: IP55, Class F, Working temperature -20°C / +120°C, Anti Corrosive finish with polyester resin & Range (135 cmh to 21,000 cmh) (Atex Optional)

Applications: Commercial Central Kitchens, Dust and gas extractor fans



CBI/K: IP55, Class F, Working temperature -20°C / +120°C, Anti Corrosive finish with polyester resin & Range (8200 cmh to 17,200 cmh) (Atex Optional)

Applications: Commercial Central Kitchens, Dust and gas extractor fans



CBI: IP55, Class F, Working temperature -20°C / +120°C, Anti Corrosive finish with polyester resin & Range (1,040 cmh to 75,000 cmh) (Atex Optional)

Applications: Commercial Central Kitchens, Dust and gas extractor fans



CFI/K: IP55, Class F, Working temperature -20°C / +120°C, Anti Corrosive finish with polyester resin & Range (600 cmh to 20,100 cmh) (Atex Optional)

Applications: Commercial Central Kitchens, Dust and gas extractor fans

## **SMOKE FANS**



XCT: IP55, Class H, Fire Rated Temperature (200°C, 300°C & 400°C) / 2 hours, Anti-Corrosive finish with polyester resin & Range (3,150 cmh to 192,300 cmh) Applications: shopping centres, airports, industrial buildings, cinemas, theatres or similar buildings.

## **DEHUMIDIFIER**



#### Portable Dehumidifier:

Designed for commercial and industrial applications. With a high capacity of 60-138Ltr/24Hr, it efficiently removes excess moisture.

Applications:
Storage, preservation and archives



#### Household Ceiling Dehumidifier:

Designed ultra thin and silent body, Protection functions and precise humidity control. 26-96Ltr/24Hr, it efficiently removes excess moisture

Applications: Homes, Hotels & Seaside resorts



## Floor Standing Dehumidifier: Equipped with an intelligent control

Equipped with an intelligent control system, it automatically adjusts the dehumidification process, ensuring hassle-free operation. 288-960Ltr/24Hr

**Applications:**Swimming Pools, Food and Beverage



#### Commercial Ceiling Dehumidifier:

Designed specifically for commercialzz environments, Its precise humidityzcontrol system allows users to set theirzdesired humidity level. 26-960Ltr/24Hr

Applications:
Agriculture & Data centres and telecoms

### **ERV & HRV**



LE SERIES: Energy Recovery Unit, Double filters, Three speed & Range (115 cmh to 2,000 cmh)

**Applications: Home & Hotels** 



HP SERIES: Heat or Energy Recovery Unit, Double filter ntelligent control & Range (150 cmh to 1,300 cmh)

**Applications: Home & Hotels** 



HE SERIES: Heat or Energy Recovery Unit, Double filter, Intelligent control & Range (150 cmh to 1,300 cmh)

**Applications: Home & Hotels** 



MA SERIES: Heat or Energy Recovery Unit & Range

**Applications: Home & Hotels** 

(1,500 cmh to 6,000 cmh)



FNH SERIES: Heat or Energy Recovery Unit, F9 Filter, Intelligent control & Range (150 cmh to 600 cmh)

**Applications: Home & Hotels** 

### **HOODS**



#### **Side Suction Hood:**

Matt Blackz Material with no filters & Touchz sensor + Motion sensor Air flowz Range (300 cmh to 1200 cmh)

**Applications: Home & Restaurant** 



#### **Pyramid Hood:**

Stainless steelz304/430/201 with aluminiumzfilters. Air folw Range (300 cmh toz700 cmh)

**Applications: Home & Restaurant** 



#### **ESP Hood:**

Stainless steel specialzhood with electrostatic filters & airzcurtain technology . Range (3,000zcmh to 4,000 cmh)

**Applications: Home & Restaurant** 

### **AIR PURIFIER**



#### **AIRP-06:**

Small Air Purifier Unit Able to cover 50-70 m2

Applications: Reception, Offices & Living rooms.



#### **AIRP-15:**

Large Air Purifier Unit
Able to cover 90-120 m2

Applications: Reception, Offices & Living rooms.

### **MOTORS**



#### **Internal Rotor Motor:**

Used for large ventilation system fans, Extraction systems & Medical device technology. Range (0.55 KW to 60 KW)



#### **External Rotor Motor:**

Used for inline fans and ventilation systems, Refrigeration technology & Process cooling.

## **PLASTIC FANS**



EVD: Working temperature -25°C / +50°C & Range (83 cmh to 253 cmh)

**Applications: Toilets & Living Rooms** 



EVBA: Working temperature -25°C / +50°C & Range (10 cmh to 72 cmh)

**Applications: Toilets & Living Rooms** 



EVW: Working temperature -25°C / +50°C & Range (88 cmh to 330 cmh)

**Applications: Toilets & Living Rooms** 



EVWS/E: Working temperature -25°C / +50°C & Range (100 cmh to 300 cmh)

**Applications: Toilets & Living Rooms** 



EVWS: Working temperature -25°C / +50°C & Range (83 cmh to 320 cmh)

**Applications: Toilets & Living Rooms** 



QuietX: Working temperature -25°C / +40°C & Range (90 cmh to 250 cmh)

**Applications: Toilets & Living Rooms** 



CDEF: Working temperature -25°C / +50°C & Range (100 cmh to 400 cmh)

**Applications: Toilets & Living Rooms** 



EMC:IP24, Working temperature -25°C / +50°C & Range (115 cmh to 320 cmh)

**Applications: Toilets & Living Rooms** 

## **AIR TREATMENT UNIT**



EVES D: Electrostatic Precipitator, Purification Efficiency (Single Pass: >= 90% & Double Pass: >= 98.7%) & Range (3,000 cmh to 14,000 cmh)

Applications: Filtration Restaurant Smoke



#### **EV-ECU:**

Designed for the removal of smoke, oil, and grease particles from kitchen ventilation system to eliminate or reduce odor to anacceptable level.

Applications: removal of smoke, oil, and grease particles from the kitchen ventilation system

## **HYGIENIC FILTRATION**



#### G2-G4 Pre Air Filter:

Used as first stage filters in air condition systems & pre filtration in multi filtration systems.

Types: Pleat



#### F5-F9 Medium Efficiency Filter:

Suitable for commercial buildings, Spray paint car room & Factories. Used before high efficiency filter.

Types: Bag - Pleat - Vcel



#### **Carbon Filter:**

The canisters come in one standard size, differentiated by materials and lengths for different airflow rates.

Types: Carbon Canister



#### H11-H14 High Efficiency HEPA Filter:

Used for high efficient cleaning of air and sterilizing filtration in medical institutions & clean rooms.

Types: Pleat - Vcell

### **Odor & Gases Adsorbents**



### **Euro Adsorb 1:**

Activated alumina spheres impregnated with potassium permanganate



#### **Euro Adsorb 2:**

Impregnated activated alumina spheres



### **Euro Adsorb 3:**

Caustic carbon impregnated activated alumina spheres



### **Euro Adsorb 4:**

Granules of activated zeolite



### **Euro Alpha:**

High-quality virgin or impregnated activated carbon pellets



#### **Euro Blend:**

Blend of activated alumina impregnated with potassium permanganate and virgin activated carbon pellets

### **AIR CURTAIN**



#### FM-H/Y:

Efficient motor, continuous operation for more than 5000 hours without failure, strong air flow, superior function. Range (1,400 cmh to 3600 cmh)

Applications: Restaurant, Shops, Markets & Warehouses.

## **FLEXIBLE DUCTS**



ALUMINIUM DUCT I INSULATED DUCT | ACOUSTIC DUCT | TEMPERATURE DUCT









**DOUBLE LAYER DUCT** 



**COPPER PLATING DUCT** 



**SEMI-RIGID** ALUMINIUM DUCT



**SILENCER** 

## **ACCESSORIES**



**MOUNTING BRACKETS** 



**BACK DRAUGHT** SHUTTER



**FLEXIBLE DUCT COLLARS** 



**PROTECTION** GRILLE



MOUNTING **BRACKETS** 



PLASTIC SHUTTER



**INLET FLANGE** 



**INLET COLLAR** 



**AUTOMATIC SHUTTER** 



**FLAT ROOF** SOCKET



SOCKET SILENCER



**WEATHER PROTECTION** HOOD



MOTOR **PROTECTION** SHIELD



**BASE FRAME** 



**RAIN COVER** 



**PANEL** 



SOUND **DIFFUSER** 



**RIGID DUCT SILENCER** 



**FLEXIBLE DUCT SILENCER** 



**ISOLATOR SWITCH** 

## **ACCESSORIES**





STEP SWITCH-3



ELECTRONIC CONTROLLER



STEP-5
TRANSFORMER



TRANSFORMER

STEP-5 TRANSFORMER



TRANSFORMER



CONSTANT PRESSURE
CONTROL



CO2 CONTROL



**EC-CONTROLLER** 



FREQUENCY CONTROLLER



A/SP



A/MS



A/HS



A/DV

# **Important Notes**

## Kules & Formulas Kelated to Fans

Airflow (Q)

Volume of air to be exhausted or introduced in a place in a period of given time. It is usually expressed in m3/h or m3/s.

In Italy to calculate the airflow there are some different ways:

1) According to the volume of the place and the number of the required air exchanges per hour in relation with the use in the room:

INDUSTRIAL ENVIRONMENT	EXCHANGES / h
Harmful environments	30 - 60
Stock House	3 - 6
Foundry	20 - 30
Industrial laundry	15 - 30
Machines room	20 - 30
Workshop (in general)	8 - 10
Workshop with ovens	30 - 60
Mechanization workshop	5 - 10
Painting workshop	30 - 60
Welding workshop	15 - 30
Dry-cleaners	20 - 30

COMMERCIAL ENVIRONMEN	T EXCHANGES / h
Classroom	2 - 4
Bank	3 - 4
Café	10 - 12
Library	3 - 5
Cine-theatre	10 - 15
Industrial Kitchen	15 - 30
Cafeterias	5 - 10
Recording Studio	10 - 12
Garage	6 - 8
Gym	6 - 12
Hospital	4-6
Public toilet	8 - 15
Laundry	15 - 30
Offices	4 - 8
Bakery	20 - 30
Restaurant	5 - 10
Ballroom	6 - 8
Conference rooms	8 - 12
Hairdresser	10 - 15
Meeting rooms	4 - 8

These values are indicative and they never have to replace the normative figures and they can be modify according to special requirements.

- 2) According to the quantity of people habitually present in the place and their activities:
- 20 -40 m3/h per person in case of normal activity.
- 108 m3/h per person in case that smoke is allowed.
- 45 m3/h per person in case of light physical activity.
- 60 m3/h per person in workshops and other rooms.

3) According to the air velocities required for the capture of particles or the velocity of transport of the same in the ducts.

<b>VELOCITY OF CAPTATION</b>	m/s
Kitchen hoods:	
- domestic application	0,2 to 0,3
- commercial application	0,2 to 0,5
Evaporation vats:	0,25 to 0,5
Degreasing:	0,25 to 0,5
Welding, pickling	0,50 to 2
Galvanization	0,50 to 1
Painting boot	0,40 to 1
Grinding, rectification	2,50 to 10

VELOCITY OF TRANSPORT	m/s
Dust:	10
Flour:	15
Sawdust:	15
Thin metallic dust:	15
Wooden shavings:	18
Metallic shavings:	20 to 25

To calculate the airflow multiply this speed (v) for the air crossing section (S):  $Q(m3/h) = v(m/s) \times S(m2) \times 3600$ 

4) In function of the quantity of exceeding heat to be removed:

In general for the refreshing of environments the airflow to be exhaust is given by the following formula:

$$Q (m3/h) = \frac{\text{Number kcal/h (*)}}{0.3 (Ta - Te)}$$

Where 1000 watt = 1 kW = 860 kcal

Ta = Ambient temperature (°C)

Te = External temperature (°C)

(\*) = Quantity of heat to be removed (see table 1)

Table I Lillellicy	electrical macmines
Efficiency	Heat dispersion
Electric Motors 70-95	5% 5 to 30%
Transformers 90-95%	5 to 10%
Rectifiers 80-97%	3 to 20%
Alternators 87-98%	2 to 23%

#### Fan laws

The characteristic curves of fans respond to certain laws, denominated "fan laws", that allow to determine the variation of airflow (Q), pressure (H) and the absorbed power by the impeller (N), in presence of the variation of the working conditions, RPM (n) or density of the handled air (y) or dimensions (Diameter of the impeller D).

Variation of RPM for the same fan at constant density:

$$Q_2 = Q_1 \times \left(\frac{n_2}{n_1}\right)$$

$$H_2 = H_1 \times \left(\frac{n_2}{n_1}\right)^2$$

$$N_2 = N_1 \times \left(\frac{n_2}{n_1}\right)^3$$

Variation of fan diameters (similar) at constant speed:

$$Q_2 = Q_1 \times \left(\frac{D_2}{D_1}\right)^3$$

$$H_2 = H_1 \times \left(\frac{D_2}{D_1}\right)^2$$

$$N_2 = N_1 \times \left(\frac{D_2}{D_1}\right)^5$$

Variation of density at constant RPM:

$$H_2 = H_1 \times \left(\frac{y_2}{y_1}\right)$$

$$N_2 = N_1 \times \left(\frac{y_2}{y_1}\right)$$

#### Other formulas:

Hst = Ht - Hd

Hst= Static pressure

Ht= Total pressure

Hd= Dynamic pressure

Hd (mmH2o) = 
$$\frac{Q (m3/h)}{(5 (m2) \times 3600)} ^{2}$$

$$16,08$$

N (kW) =  $\frac{Q (m3/h) \times Ht (mmH2o)}{102 \times 3600 \times \eta}$ 

η= efficency

$$m3/h = Nm3/h \times \left(\frac{(273+t)}{273} \times \frac{760}{Pb}\right)$$

Pb = Barometric pressure Nm3/h = Normal cubic meters

n (RPM)=  $\underline{120 \times \text{frequency (Hz)}}$ number of poles motor





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