



ES-600/1200/1800 COMBI

Fume Cupboards



Carbo fume cupboard model **ES-600/1200/1800 COMBI** is a suction hood with molecular filtration, equipped with activated carbon filter.

It assures an excellent protection both of the operator and the environment, it holds in its activated carbon filter all harmful molecules to respiration and environment.

It's not suitable like protection for the products manipulated into it from the external contamination.

It can be used in all cases it is not essential to protect the product from the air present in the laboratory (eg opening of biological samples for analysis, manipulation of organic and inorganic substances that produce toxic vapours or smelly, or as protection for centrifugal apparatus risk of aerosols, etc.).

The activated carbon filter for generic substances (**TYPE A**) absorbs most of the aliphatic and aromatic hydrocarbons, solvents, organic vapors, ketones, alcohols, organic acids, esters, halogens, unpleasant odors, sulfur compounds. Other substances such as ammonia, formaldehyde and derivatives, acid gases, iodine, mercury, order the hood with carbon filter impregnated for one of these substances (**TYPE B**).

Casing realised in powdered painted steel acids resistant, RAL 9010.

It can be installed over any bench. Its working surface consists of a removable tray in stainless steel **Aisi 316L 2B** glazed which allows the hood location also over tanks or sinks.



TECHNICAL SPECIFICATIONS

- **ES-600 COMBI** activated carbon filter: 10 Kg.
- **ES-1200 COMBI** activated carbon filters: 10+10 Kg.
- **ES-1800 COMBI** activated carbon filters: 10+10+10 Kg.
- Prefilters in synthetic material class G3 (82% efficiency) in accord. with EN 779
- Casing realised in powdered painted steel acids resistant, RAL 9010.
- Work surface is a removable tray in stainless steel **Aisi 316L 2B** glazed.
- Front sash and lateral panels in Plexiglas.
- Front opening from min. 250 mm. to max 800 mm.
- Aspired air regulation with electric contact in function of the frontal opening: it allows to maintain constant the protection frontal barrier.
- Two speed fans switch. Double ejection air speed control in function of the front opening.
- Emergency button speed aspiration.
- Polycarbonate membrane control panel with microprocessor.
- Outlet service, outside the work room, programmable, with timer hours visualisation max 99 hours, with overload fuse
- Filter and outlet service working hours visualisation, with digital hours counter, max 9999 hours.
- Warning signal (flashing display) in case of no tension during the use of the outlet service.
- Low background noise electric fans (n°1 for **ES-600 COMBI**, n°2 for **ES-1200 COMBI**, n°3 for **ES-1800 COMBI**) that meet the requirements of the directives EN 60335-1, EN 50178, EN 60950, approvals by VDE, CE, UL. Possibility to regulate air flow.
- **ES-600 COMBI** lighting: 1 x 15 W - 750 Lux, outside the work area.
- **ES-1200 COMBI** lighting: 2 x 15 W - 750 Lux, outside the work area.
- **ES-1800 COMBI** lighting: 3 x 15 W - 750 Lux, outside the work area.
- On the right side of the hood, attack with hose union to be grafted, for execution of the carbon filter saturation test.
- Noise ≤ 60 Db
- Possibility to insert another ejection filter (activated carbon or hepa filter).
- Max height with air conveyor Ø 150 mm (Ø 200 mm for **ES-1800/R COMBI**) and support H: 2300 mm.



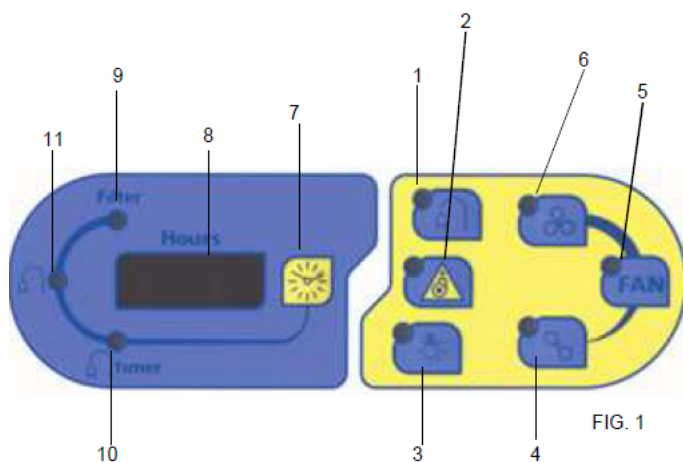
TECHNICAL SPECIFICATIONS

| COD. | Work area dimensions WxDxH (mm) | Tank capacity litres | Overall dimensions WxDxH (mm) | Overall dimensions with Air Conveyor WxDxH (mm) | Filtered air Volume m ³ /h | Air Average speed (m/s) | Weight (Kg) |
|----------------------|---------------------------------|----------------------|-------------------------------|---|---------------------------------------|-------------------------|-------------|
| ES-600 COMBI | 600x700x900 | 6.3 | 680x780x1500 | 680x780x1670 | 330 | 0.5 | 92 |
| ES-1200 COMBI | 1200x700x900 | 12.5 | 1280x780x1500 | 1280x780x1670 | 600 | 0.5 | 150 |
| ES-1800 COMBI | 1800x700x900 | 19 | 1880x780x1500 | 1880x780x1670 | 1000 | 0.5 | 210 |

ELECTRICAL SPECIFICATIONS

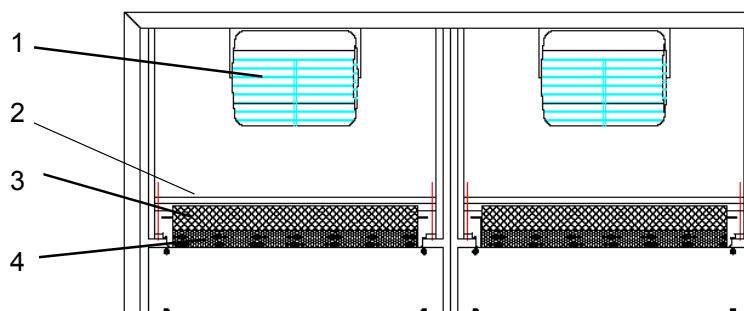
| COD. | Power supply | Electrical Input | Overload fuses | Outlet overload fuse | Connection outlet |
|----------------------|---------------|------------------|--------------------|-----------------------|-------------------|
| ES-600 COMBI | 230 V - 50 Hz | 140 W + 440 W | 2x3 AF (5 x 20) mm | 1 x 2 AF (5 x 20) mm. | 10 A |
| ES-1200 COMBI | 230 V - 50 Hz | 280 W + 440 W | 2x5 AF (5 x 20) mm | 1 x 2 AF (5 x 20) mm. | 10 A |
| ES-1800 COMBI | 230 V - 50 Hz | 420 W + 440 W | 2x5 AF (5 x 20) mm | 1 x 2 AF (5 x 20) mm. | 10 A |

CONTROL PANEL

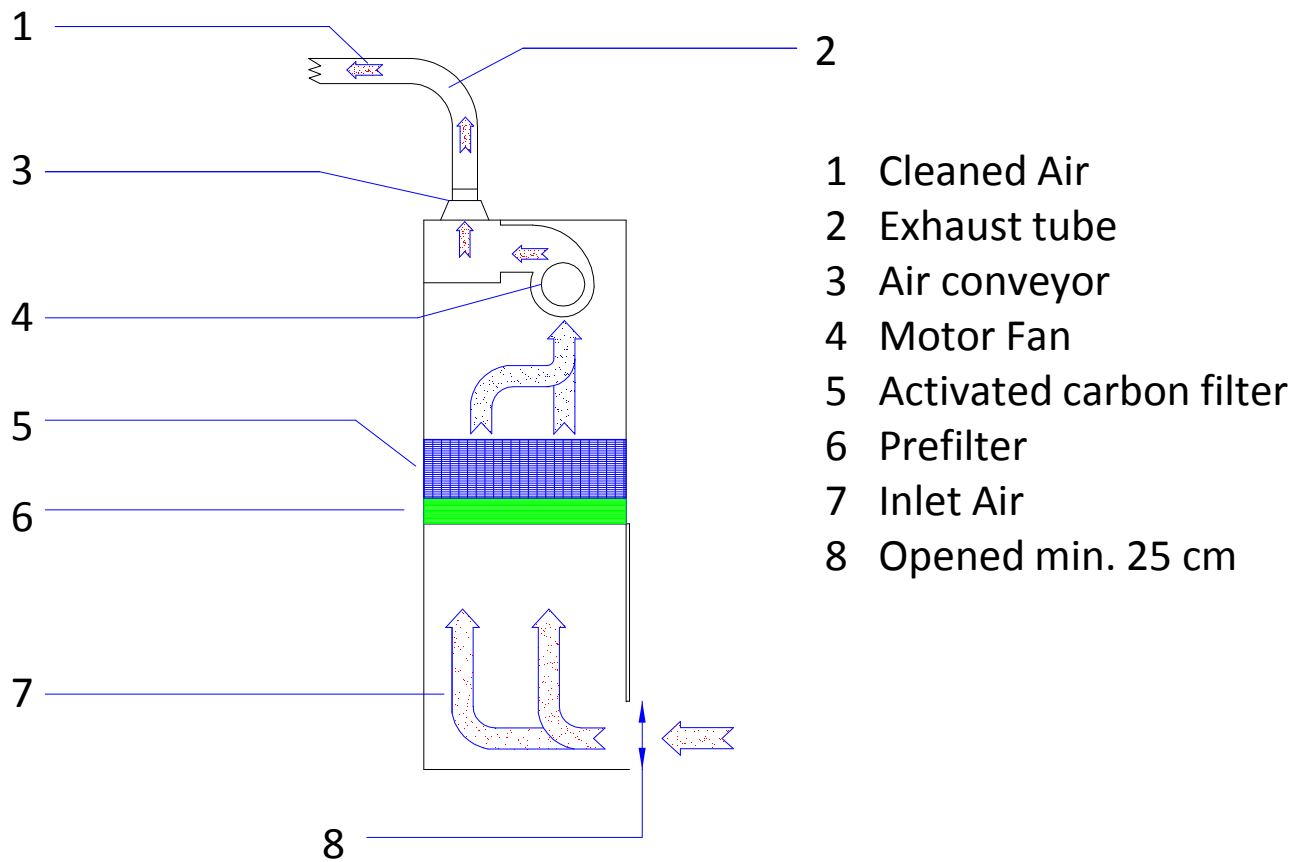


- 1 Outlet control switch
- 2 Emergency control maximum fan speed
- 3 Lighting switch
- 4 Low fan speed
- 5 Fan switch
- 6 Maximum speed fan
- 7 Filter-outlet service time display switching
- 8 Time display
- 9 Filter working hours visualization, max 9999 hours.
- 10 Outlet service timer hours visualization, max 99 hours.
- 11 Outlet service working hours visualization, max 9999 hours.

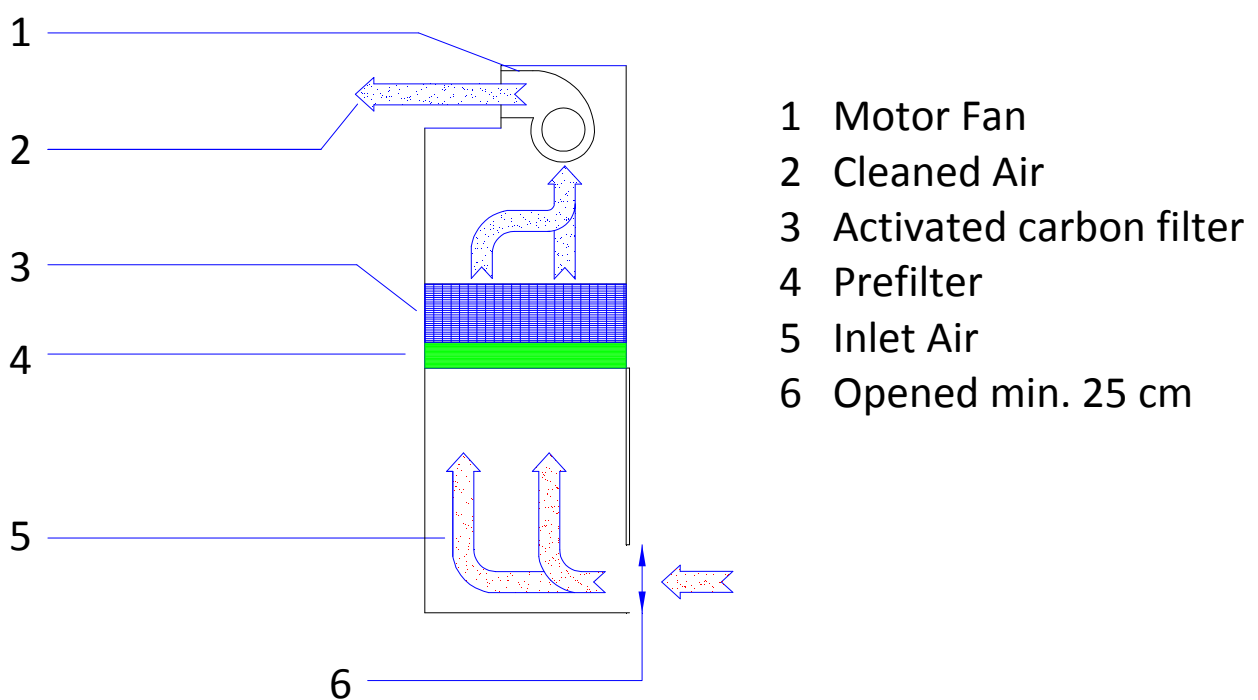
- 1 Motor fan
- 2 Block stirrup
- 3 Activated carbon filter
- 4 Prefilter



Model **ES-600/R COMBI** - **ES-1200/R COMBI** - **ES-1800/R COMBI**



Model **ES-600 COMBI** - **ES-1200 COMBI** - **ES-1800 COMBI**



OPTIONAL ACCESSORIES

- ◆ Top extension jamb and rear panel made with white foamed PVC. It is recommended to install if usually on handling materials which produce toxic heavy fumes.
Work surface dimensions become WxDxH:
 - **ES-600 COMBI**: 600x600x900 mm
 - **ES-1200 COMBI**: 1200x600x900 mm
 - **ES-1800 COMBI**: 1800x600x900 mm
- ◆ Air conveyor connector Ø 150 mm. (Ø 200 mm for **ES-1800/R COMBI**) with anti-wind air grating. In the cupboard certified UNI EN 14175, the air conveyor is supplied as standard.
- ◆ Frontal closing in Plexiglas with prefilter and gloves
- ◆ 3/8" Water cock
- ◆ Mixer cock for hot and cold water with extractable shower
- ◆ 3/8" Air/vacuum cock
- ◆ 3/8" Nitrogen / Oxygen / Argon / Inert gas / Formalin / Carbon dioxide (max pressure 10 bar) cocks
- ◆ 3/8" Gas cock (max pressure 2 bar).
- ◆ External outlet service 3 positions (schuko and/or Italian)
- ◆ Work benchtop in white polypropylene or in monolithic stoneware, with excellent resistance to acids, salts, alkalis, bases and high temperature. On request with tank and discharged.
- ◆ Stainless steel tanks with discharged WxDxH:
 - (dim.mm. 240x135x150 - Lt. 4,1).
 - (dim.mm. 300x330x200 - Lt. 19) only for **ES-1200 COMBI – ES-1800 COMBI**
 - (dim.mm. 500x300x200 - Lt. 30) only for **ES-1200 COMBI – ES-1800 COMBI**
- ◆ Polypropylene tank with discharged (WxDxH 250x100x150 mm. –Lt. 3.8)
- ◆ Stainless steel and Polypropylene tank cover mm. 265x162
- ◆ Other tanks and covers on request.
- ◆ Hood's support without plan for hood equipped with 3/8" water cock, tank and discharged on the right side, WxDxH:
 - **ES-600 COMBI** - 750x700x800 (830 with wheels) mm.
 - **ES-1200 COMBI** - 1300x700x800 (830 with wheels) mm.
 - **ES-1800 COMBI** - 1900x700x800 mm.
- ◆ Four wheels kit for support (only for **ES-600 COMBI – ES-1200 COMBI**).
- ◆ Drawers set with three draws and wheels WxDxH: 410x500x570 mm, to fit under the support.



ONLY FOR **ES-600 COMBI**:

- ◆ Frontal closing panel in stainless steel
- ◆ Frontal closing panel in Plexiglas
- ◆ Hood's support with wood plan dim. WxDxH: 750x750x830 (860 with wheels) mm
- ◆ Four wheels kit for support.

ONLY FOR **ES-1200 COMBI**:

- ◆ Hood's support with wood plan dim. WxDxH: 1400x800x830 (860 with wheels) mm
- ◆ Four wheels kit for support.



OTHER FILTERS BY REQUEST:

- ◆ Impregnated carbon filter for special substances: Iodine, Mercury, Formaldehyde, Ammonia and Acid Gases.
- ◆ Hepa absolute filter (High efficiency particulate air) tested M.P.P.S in accordance with C.E.N. 1822 global efficiency 99.995% class H14, to insert between work zone and active carbon filters.



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