



ASALAIR FUME CUPBOARD COMBI FLOOR

600 COMBI – 600/R COMBI
600/A COMBI FLOOR: CODE 29940041
600/B COMBI FLOOR: CODE 29940042
600 COMBI HEPA FLOOR: CODE 29940038

1200 COMBI – 1200/R COMBI
1200/A COMBI FLOOR: CODE 29940044
1200/B COMBI FLOOR: CODE 29940045
1200 COMBI HEPA FLOOR: CODE 29940039

1800 COMBI – 1800/R COMBI
1800/A COMBI FLOOR: CODE 29940082
1800/B COMBI FLOOR: CODE 29940083
1800 COMBI HEPA FLOOR: CODE 29940120

COMBI/A FLOOR: ACTIVATED CARBON FILTER FOR GENERIC SUBSTANCES

COMBI/B FLOOR: IMPREGNATED CARBON FILTER FOR SPECIAL SUBSTANCES

COMBI/HEPA FLOOR: HEPA FILTER (HIGH EFFICIENCY PARTICULATE AIR)

CE

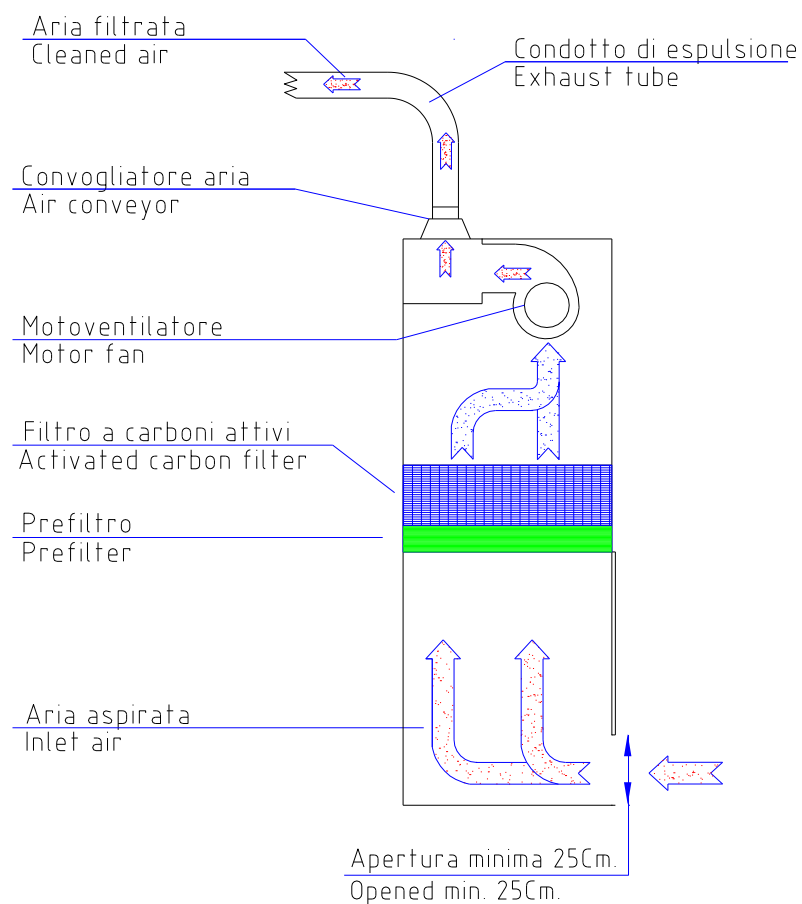


Model 600/R Combi – 1200/R Combi – 1800/R Combi

Equipped as standard with air conveyor Ø 150 mm. (Ø 200 mm for 1800/R Combi) with anti-wind air grating, for the exhaust outside of filtered air, that the customer is **REQUIRED** to install.

APPROVALS

- ◆ CEI EN 61010-1:2010 electrical safety requirements
- ◆ UNI EN 14175-1-2-3:2003 fume cupboard
- ◆ EN 61326-1:2006 EMC

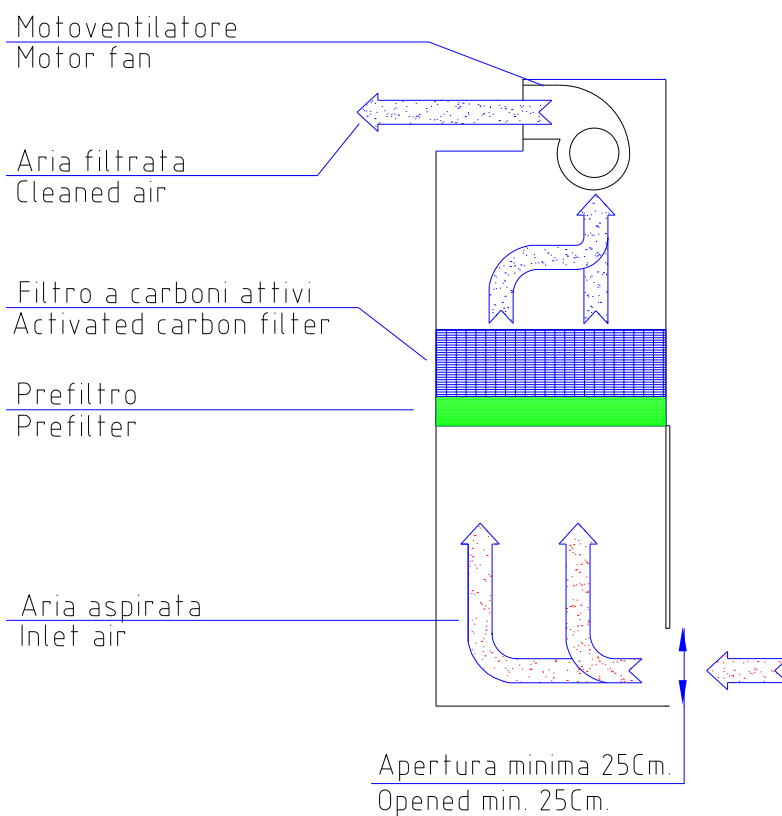


Model 600 Combi – 1200 Combi – 1800 Combi

This model does not require any air conveyor

APPROVALS

CEI EN 61010-1:2010 electrical safety requirements
EN 61326-1:2006 EMC



DESCRIPTION

Asalair Carbo fume cupboard model 600-1200-1800 Combi FLOOR 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 (e.g. 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).

For the choice of filter order, see **ACTIVATED CARBON ADSORPTION CAPACITY TABLE** on next pages.

We remind you that in choosing the type of carbon filter for use in hoods, Asal SRL gives general indications resulting from information received from the customer can choose from 5 types of carbon filters:

- For organic and inorganic vapors (alcohol, solvents, dyes, etc.)
- For acid gases
- For mercury
- For ammonia
- For iodine
- For aldehyde, formaldehyde

Asal srl disclaims all liability for any accidents due to chemical reactions, explosions or poisoning that may be caused by incorrect choice of the type of carbon or from improper use of the hood.

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

The model certified in accordance with **UNI EN 14175-1-2-3:2003 model 600/R Combi-1200/R Combi - 1800/R Combi** is equipped as standard with air conveyor Ø 150 mm. (Ø 200 mm for 1800/R Combi) with anti-wind air grating, for the exhaust outside of filtered air, that the customer is REQUIRED to install.

The model certified in accordance with only **EN 61010-1:2010 model 600 Combi -1200 Combi -1800 Combi** does not require any air conveyor.

FEATURES

- ◆ 600 Combi activated carbon filter: 10 Kg.
- ◆ 1200 Combi activated carbon filters: 10+10 Kg.
- ◆ 1800 Combi activated carbon filters: 10+10+10 Kg.

- ◆ Prefilter in synthetic material class ePM10 50% in accordance with EN ISO 16890:2016

- ◆ Casing realised in powdered painted steel acids resistant, RAL 9010.
- ◆ Front sash and lateral panels in Plexiglas.

- ◆ Aspired air regulation with electric contact in function of the frontal opening: it allows maintaining 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.

- ◆ Filter working hours digital counter, max 9999 hours
- ◆ Outlet service on controls panel, with overload fuse. Digital operating counters with up to 9999 hours and the ability to program, in hours and minutes, timer operation with a maximum of 99 hours and 59 minutes. Acoustic warning signal (3 beeps) at the end of count.
- ◆ In the event of power failure, when using the service outlet: when the voltage is returned, the control switch flashes, the display blinks and indicates the time remaining before the break. Press the service outlet command to reactivate the countdown.

- ◆ Low background noise electric fans (n°1 for 600 Combi, n°2 for 1200 Combi, n°3 for 1800 Combi) that meet the requirements of the directives EN 60335-1, EN 50178, EN 60950, approvals by VDE, CE, UL. Possibility to regulate airflow.

- ◆ 600 Combi lighting: 1 x 15 W - 750 Lux, outside the work area.
- ◆ 1200 Combi lighting: 2 x 15 W - 750 Lux, outside the work area.
- ◆ 1800 Combi lighting: 3 x 15 W - 750 Lux, outside the work area.

- ◆ On the top panel 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).

TECHNICAL SPECIFICATIONS

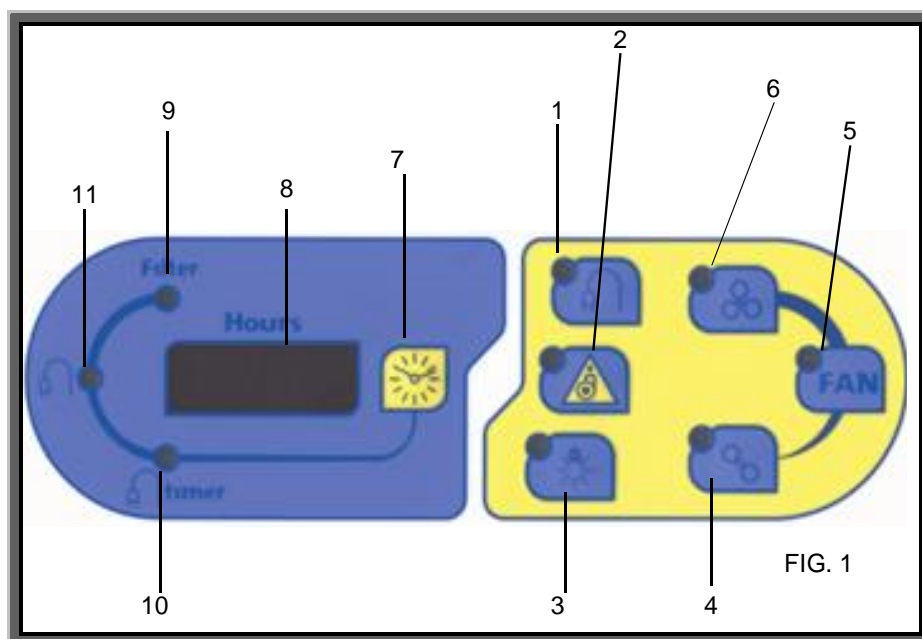
COMBI	Work area dimension WxDxH mm	Overall dimension WxDxH mm	Overall dimension with air conveyor WxDxH mm	Filtered air volume m ³ / h	Air average speed m/s	Weight Kg.
600	600x700x 1700	750x780x 2340	750x780x 2470	330	0.5	125
1200	1200x700x 1700	1300x780x 2340	1300x780x 2470	600	0.5	180
1800	1800x700x 1700	1900x780x 2340	1900x780x 2470	1000	0.5	240

ELECTRICAL SPECIFICATIONS

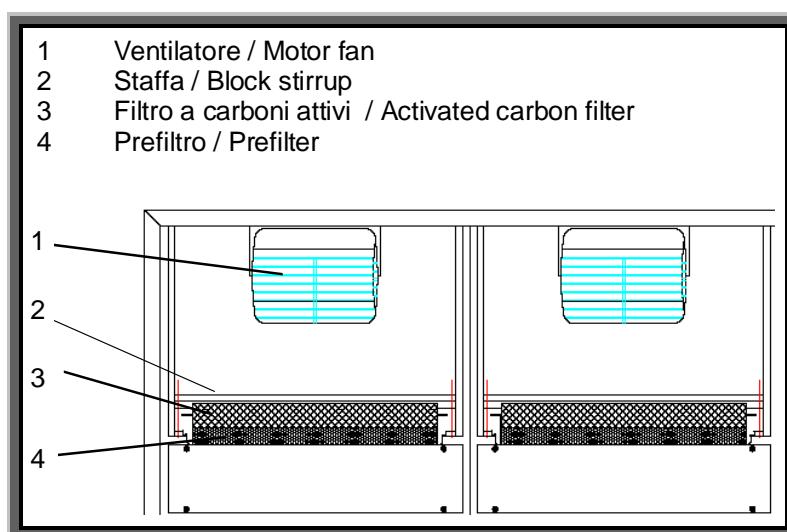
COMBI	Power supply	Electrical Input	Overload fuses	Outlet overload fuse	Connection outlet
600	230 V - 50 Hz.	140 W + 440 W	2 x 3 AF (5 x 20) mm.	1 x 2 AF (5 x 20) mm.	10 A
1200	230 V - 50 Hz.	280 W + 440 W	2 x 5 AF (5 x 20) mm.	1 x 2 AF (5 x 20) mm.	10 A
1800	230 V - 50 Hz.	420 W + 440 W	2 x 5 AF (5 x 20) mm.	1 x 2 AF (5 x 20) mm.	10 A

SAFETY: all the electrical components, switches and wirings are kept in the control panel, separated from the airflow in order to avoid inconveniences when inflammable materials are handled inside the hood.

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 and 59 minutes.
- 11 outlet service working hours visualization, max 9999 hours.



ACTIVATED CARBON ADSORPTION CAPACITY TABLE

1) Substances with high adsorption capacity by activated carbon (20-50%)

<p>Acetate methylcellosolve Acetophenone Acetic anhydride Acrylic acid Acrylonitrile Adhesives Aldehyde atrica Amilacetato Amyl Alcohol Amyl acetate Amyl ether Aniline Antiseptics Argon Aromas of food Asphalt fumes</p> <p>Benzaldehyde Benzene Benzyl alcohol Benzol Body odors Bromoform Bromine Butanol Butylcellosolve Butylacetate Butylalcohol Butylchloride Butylether Butyricacid</p> <p>Camphor Capril acid Caproaldehyde Carbolic acid Carbon disulfide Carbon tetrachloride Cellosolve Cellosolve acetate Charter deteriorated Cyclohexane Cyclohexanol Cyclohexanone Cyclohexene Chlorobenzene Chlorobutadiene Chloroform Cigarette smoke Cloronitropropane Chloropicrin Combustion odors Cooking smells Creosol o / m / p Crotonaldehyde</p> <p>Dean Detergents Dibromoethane Dichlorobenzene Dichlorobenzol Dichlorodifluoromethane Dichloroethane Dichloroethylene Dichloromethane Dichloromonofluoromethane</p>	<p>Dichloronitroethane Dichloropropane Dichlorotetrafluoroethane Diesel fumes Diethylketone Dimethylaniline Dioxane Dipropilketone</p> <p>Ether dichlorethyl Ethylacetate Ethylalcohol Ethylacrylate Ethylbenzene Ethylbenzol Ethylene Ethylformiate Ethylsilicate Ethylsulfide Ethylene dichloride</p> <p>Fertilizers Freon 11 Freon 12 Freon 114 Fruit Furfural</p> <p>Gasoline</p> <p>Heptene Heptane</p> <p>Iodoform Isopropyl acetate Isopropyl alcohol Isopropyl ether</p> <p>Kerosene</p> <p>Lactic acid Liquid fuels Lysol Lubrificants, greases, oils</p> <p>Menthol Mercaptans Mesityloxiide Methylacetate Methyl Methylacrylate Methylcellosolve Methylchloroform Methylcyclohexane Methylcycloesanol Methylcyclohexanone Methylethylketone (butanone) Methylformate Methylmethacrylate Methylene chloride Methyloxiide Monochlorobenzene Monofluorine</p>	<p>Naphtha Naphthalene Nicotine Nitrobenzene Nitroethane Nitroglycerine Nitromethane Nitropropane Nitrotoluene Nonane</p> <p>Octane Odor of putrefaction Ozone</p> <p>Paint fumes Palmitic Paradichlorobenzene Pentanone Perchloroethylene Pesticides Phenol Pyridine Propylacetate Propylalcohol Propylchloride Propylether Propylmercaptan Propyonic acid Putrescine</p> <p>Quinoline</p> <p>Resins</p> <p>Sewer odors Smells liquor Smells of hospitals Smells of fish Styrene Styrene Monomer Sulphide composites</p> <p>Tar Tetrabromoethane Tetrachloroethane Tetrachloroethylene Thiophene Toluene Toluidine Turpentine Trichloroethane Trichloroethylene</p> <p>Urea Uric acid</p> <p>Valeraldeide Valeric acids Vinegar</p> <p>Xylene Xylolo</p>
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2) Substances with good adsorption capacity by activated carbon (10-25%)

Acetone Acetic acid Anidride sulfur Arsenic Butadiene Butiraldehyde Carbon disulphite Carbon disulphide Chlorine Dichlorodifluoromethane Dichlorotetrafluoroethane Diethylamine Dimethyl Dimethyl sulphate	Esilene Ethanol Ether Ethyl Ethylbromide Ethylchloride Ethylether Ethylene glycol Ethylmercaptan Fluorinetrichloromethane Formic acid Freon Furan Hexane Hydrocyanic acid Hydrogen sulphid Iodidic acid Isopropanol Lead	Mercaptonezene Methylalcohol - methanol Methylbromide Methylacetate Methylchloride Methylether Methylformate Methylmercaptan Monofluorine Pentane Phosgene Propionic aldehyde Pyridine Pyrrole Propionaldehyde Rubber Smells of slaughter Solvents Vinyl chloride
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3) Substances with little adsorption capacity by activated carbon (< 15%)

Use impregnated carbon:

Aldehyde e derivatives (5/15%)

Ammonia (5/15%)

Mercury (5/15%)

Iodine (5/15%)

Acid gases (5/15%)

Acetaldehyde (aldehyde and derivatives) Acetonitrile (ammonia and derivatives) Acrolein (aldehyde and derivatives) Amines (ammonia and derivatives) Ammonia (ammonia and derivatives) Arsine gas (acid gases) Bromopropane (acid gases) Butane gas (acid gases) Butene (acid gases) Carbon dioxide (acid gases) Carbon monoxide (acid gases)	Diethylamine (ammonia and derivatives) Dimethylamine (ammonia and derivatives) Ethidium bromide (acid gases) Ethylamine (ammonia and derivatives) Ethylene oxide (acid gases) Formaldehyde (formaldehyde and derivatives) Hydrobromic acid (acid gases) Hydrochloric acid (acid gases) Hydrofluoric acid (acid gases) Hydrogen selenide (acid gases) Hydrogen sulfide (acid gases)	Iodine (iodine) Nitric acid (acid gases) Nitrogen dioxide (acid gases) Phosphine gas (acid gases) Propane gas (acid gases) Propene (acid gases) Propylbromide (acid gases) Sulfide gas (acid gases) Sulfuric acid (acid gases) Sulphur dioxide (acid gases) Valeric aldehyde (aldehyde and derivatives)
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4) Substances not adsorbed by activated carbon

Acetylene Carbonic acid Carbon monoxide	Ethane Ethylene Hydrogen	Methane Methylbutylketone Sulfur trioxide Sulphur dioxide
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ACCESSORIES ON REQUEST

- ♦ Air conveyor connector Ø 150 mm. (Ø 200 mm for 1800/R Combi) with anti-wind air grating. In the cupboard certified UNI EN 14175, the air conveyor is supplied as standard.



- ♦ 3/8" Water cock
- ♦ 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)



- ♦ Drawers set with three draws and wheels WxDxH: 410x500x570 mm, to fit under the 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.