



italbedis[®]
WATER. NATURALLY. SINCE 1989.

AIR FIRST OF ALL, DEFEND FROM BACTERIA, VIRUSES AND POLLUTED AIR.

Butterfly is MAXIMUM-WATER & Italbedis' proposal: air sanitation in indoor environments.

A multipurpose device, active on the entire spectrum of contaminants, sanitizes the air in closed spaces, avoiding the diffusion of microorganisms and viruses and eliminating fine dust, odors and airborne contaminants..

With Butterfly the risk of contracting diseases is reduced.



AIR SANITIZATION

BUTTERFLY

Indoor air sanitization



italbedis

WATER, NATURALLY. SINCE 1989.



The device is **compact** and **easily transportable**

Butterfly offers an interior sanitizer that sucks in and reintroduces **the air** into the environment after having **sanitized it and made it active**, enriching it with oxidizing compounds: the process **decontaminates the air and surfaces** of the environment, even the less accessible ones.

The multipurpose device integrates the performance of a controlled flow photocatalytic module (patented) with those of an innovative bipolar ionizer (patented), active as a high efficiency dust collector. The oxidizing compounds developed by the photocatalytic module ensure **the elimination of bioaerosols** (bacteria, viruses, mites, allergens), as well as **volatile organic compounds** (VOC: normally partially combustible hydrocarbons, originating from traffic), **gaseous contaminants** (NOx) and odors, while in the ionizer the ambient air is **decontaminated by dust and micro dust** (PM).

The attractive design, **easy handling** and **customizable surface color** make the device easy to integrate into the most diverse environments: from the waiting room of a doctor's office, to the lobby of a hotel, to the rooms of a home.

The device is the result of **development and fine-tuning** that lasted over four years; the services are **certified**.

Percentage distribution of indoor contamination

PARTICULATES	VOC	BIOAEROSOL
35%	31%	34%

Indicative Values



"Rich and versatile collection"

WHERE CAN BUTTERFLY BE USED?



RESIDENTIAL ENVIRONMENTS



BUSINESS PREMISES



OFFICE



CIVIL ENVIRONMENTS IN GENERAL

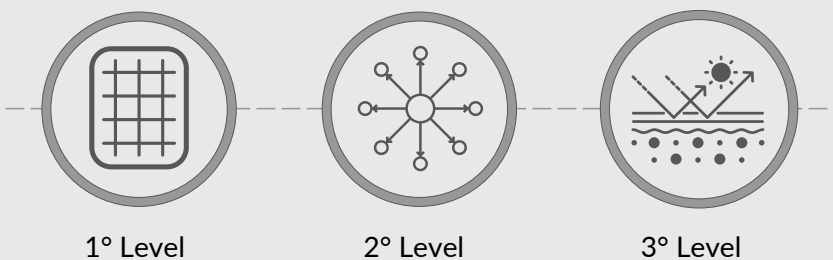
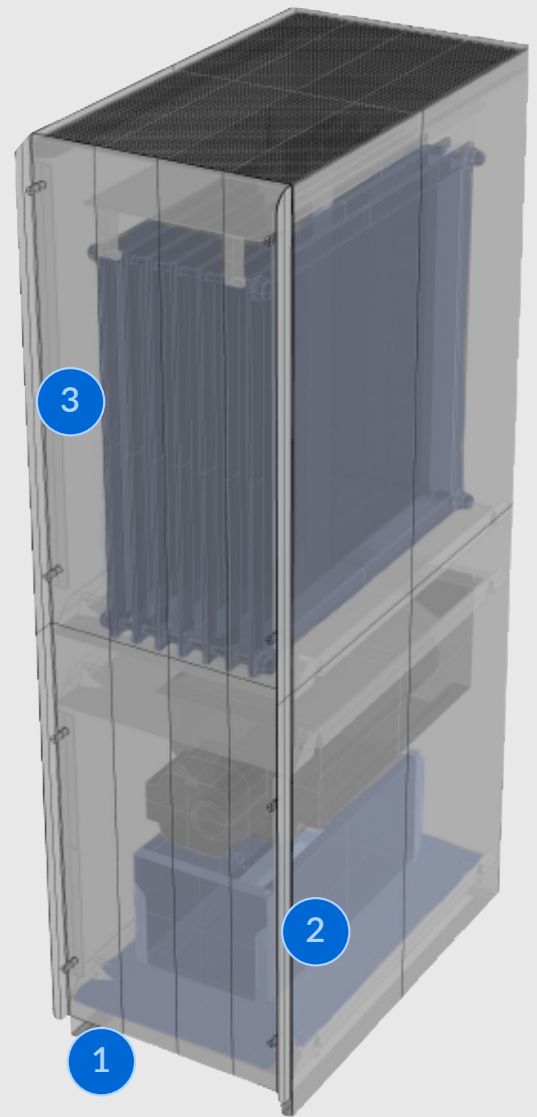
3 FILTRATION LEVELS

Unlike many sanitizers such as ozone (O³), Butterfly is particularly suitable for **all environments**, because its use is compatible with the **presence of people and animals**.

Butterfly therefore allows a **continuous elimination** of pathogens, allergens, odors, mucus and pollutants in an **effective and safe way**.

Filtration technologies used in Butterfly:

- 1° Level. **POLYETHYLENE SPONGE FILTER** which allows the filtration of coarse dust and lint
- 2° Level. **BIPOLAR IONIZATION (patented)** which allows the filtration of fine dust (PM).
- 3° Level. **PHOTOCATALYTIC UVC MODULE** controlled flow (**patented**) that allows the elimination of bioaerosols (bacteria, viruses, molds, allergens), as well as volatile organic compounds (VOC, normally partially combusted hydrocarbons originating from traffic) and gaseous contaminants and odors



TECHNICAL NOTES ON PATENTED FILTRATION TECHNOLOGIES USED IN BUTTERFLY SYSTEM

BIPOLAR IONIZER

The BIPOLAR IONIZER includes **two electrodes with opposite charge**:

The electrodes are configured to form an active **electrostatic precipitator**. The **efficiency** remains practically constant during the **operating life** of the plant and the load losses are negligible.

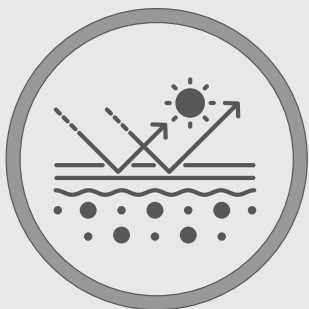
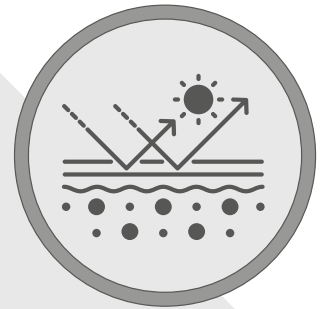


THE PHOTOCATALYTIC UVC MODULE

The photocatalytic uvc module combines two technologies:

- **UVC Lamp**
- **Photocatalytic System**

UVC ultraviolet light, which has a **higher bactericidal power than chlorine** and its compounds (also because it is strongly active on **viruses, spores, fungi, algae, etc.**), is based on the **natural disinfectant power** that a **fraction of the light itself has. emitted by the sun**: ultraviolet rays in the C band (short wave UV-C: wavelength from 100 to 280 nm, where nm = nanometer which corresponds to one millionth of a millimeter). **UV-C radiation**, which is **most effective** at the wavelength of 254 nm, **destroys and inactivates microorganisms** (the nuclei of the irradiated cells undergo a photolytic action which **stops the process of division and multiplication**).



Photocatalyst. In the presence of ultraviolet radiation, the **photocatalyst generates reactive** and oxidizing compounds that interact with organisms or chemicals present in the environment, **transforming them into inert substances**. The active substances released (including hydrogen peroxide) allow the **sanitation of the present surfaces** (floors, desks,...).

IN OUR PATENTED SYSTEM PHOTOCATALYSIS IS EXPONENTLY INCREASED THANKS TO A PARTICULAR SANITIZER **"PACKAGE" CONSISTING OF GLASS FIBER SLABS IMPREGNATED WITH TITANIUM DIOXIDE.**

WHERE THE BUTTERFLY SYSTEM

MAKE A DIFFERENCE?

INTEGRAL AND CONTINUOUS PROTECTION FOR THE USER

Compared with most of the devices on the market, the **Butterfly system is active on the entire spectrum of contaminants**, from viruses to fine dust: the user benefits from **integral protection**. Furthermore, protection is continuous, unlike pure ozonation whose effect is only temporary and does not include fine dust.





ACTIVE PROTECTION EVEN WITH LOW WINTER HUMIDITY

All photocatalytic systems have reduced or almost zero performance when the humidity is low in the environment, such as in heated winter interiors. Butterfly has solved the drawback by developing a controlled flow photocatalysis which, in any case, **carries out oxidation and consequent neutralization of contaminants, even with reduced humidity.**



EFFICIENT, "HYGIENIC", LOW ENERGY CONSUMPTION REDUCTION OF FINE DUST

HEPA filters, used by other devices on the market, consume a lot of energy to ensure the right air flow and retain particulates and, with it, microorganisms. The latter, however, progressively originate in the filter a set of corpuscles which, once dead, release harmful endotoxins into environments. With Butterfly, at the same efficiency as HEPA, **the energy consumption of the bipolar ionizer is almost zero**, while the internal electric field **completely neutralizes microorganisms and their exhalations.**

WHY CHOOSE BUTTERFLY?

The compact device, **easily movable** and with the **consumption of an incandescent lamp**, offers in indoor environments an **integral and continuous protection** from the contamination produced by the occupants and introduced with the replacement air.



REDUCED PROBABILITY OF CONTRACTING DISEASES

Reduced probability of **diseases and allergies** with a consequent increase in **environmental quality** in the workplace and in productivity.



CUSTOMIZATION

Colors are **customizable** for a better integration in the environments.



ENERGY SAVING

Reduced energy **consumption**.



ELIMINATION

Elimination of **mold** and unpleasant **odors**

DIMENSIONS EACH FORM ALLOWS TO TREAT:



for premises up to 90 mq

(recycling of about 150 m³ / h of air)



HEIGHT
2,7 - 3 m



COMPACT
AND TRANSPORTABLE



**TODAY IS
THE RIGHT ONE
TO BE SURPRISED**

CERTIFICATIONS



BUTTERFLY IS CERTIFIED

EMC



RoHS

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