

cleansci



Air purifier with photocatalysis

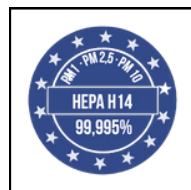
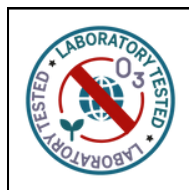
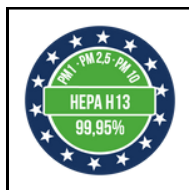
Pure air for a better quality of life

skyled



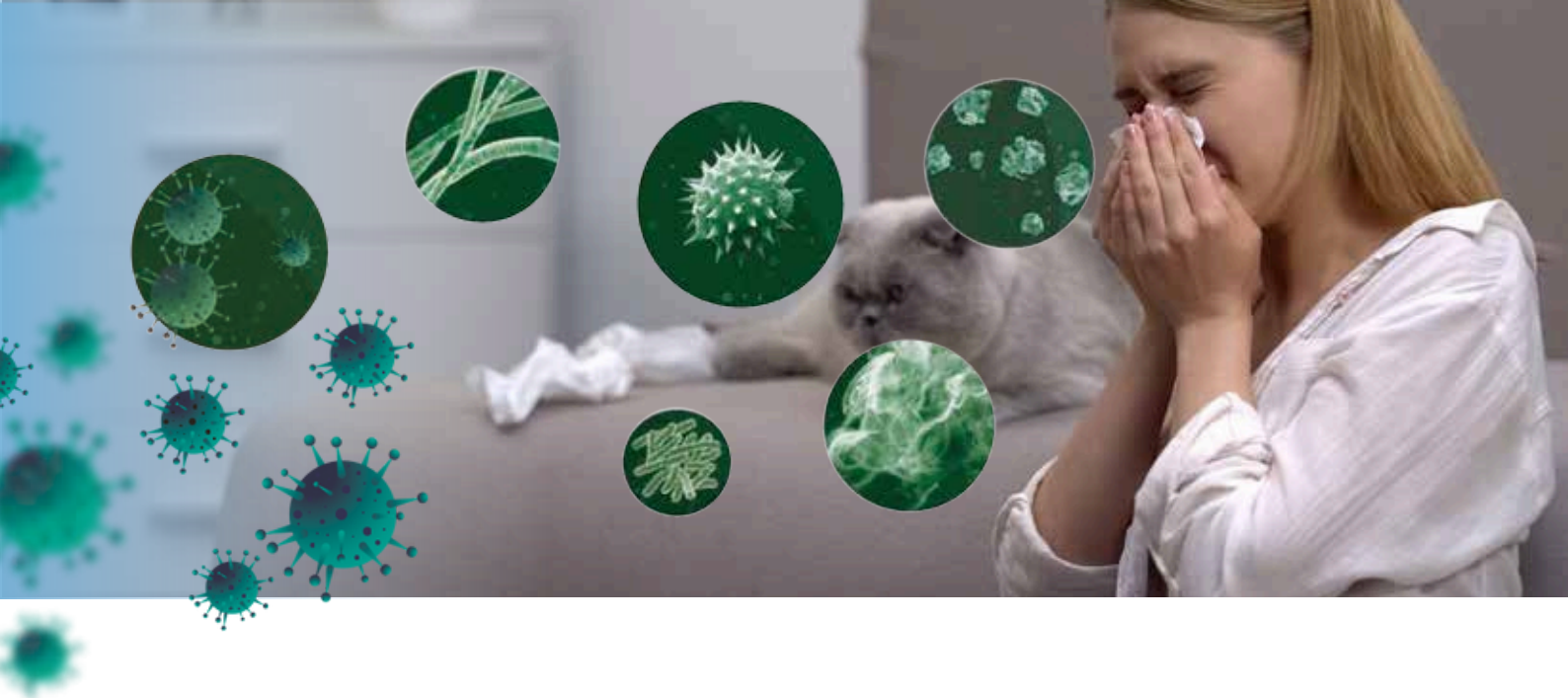
The solution of the future is SkyLed:
it allows you to stay indoors even
while it is on.

LAB TESTS



TECHNOLOGY IN SUPPORT OF NATURE

After years of research and development in the field of air cleaning, Maxima managed to create a new purification system, which is active 24 hours a day and 365 days a year, able to reduce infectious, chemical and biological risks, improving the quality of indoor air.



WHAT DO YOU BREATHE DURING THE DAY?

Every day we breathe about 15,000 liters of air, inhaling allergens and micro pollutants, which can cause coughing, sneezing, itching or, even worse, viruses and, as a result, fever and inflammation.

Air is essential for the survival of all living beings since it carries oxygen in the body. It is a source of life, but can become a silent killer when not pure; in this case, it is necessary to sanitize it.

THE DANGER INCREASES INDOORS

Most people spend up to 90% of their time indoors. According to the EPA (Environmental Protection Agency) and the ISS (Istituto Superiore di Sanità) the levels of polluting air indoors can be 2-5 times higher than outdoors.

According to the WHO, 40% of all the buildings represent a serious danger to our health due to the presence of pollutants, often unsuspected, inside them.



A SILENT KILLER

Using cameras and laser beams, researchers from the University of Tokyo demonstrated that you can emit 100,000 particles of 1 thousandth of millimeter through a simple sneeze, or through a cough. The risk goes up in closed spaces, without ventilation: the largest particles fall, whereas the smaller and lighter ones remain suspended in the air even for 20 minutes. This aerosol is generated even while we are talking, with the risk of human-to human transmission of a viral contagion.

EFFECTS OF FINE DUST AND BACTERIA ON OUR HEALTH

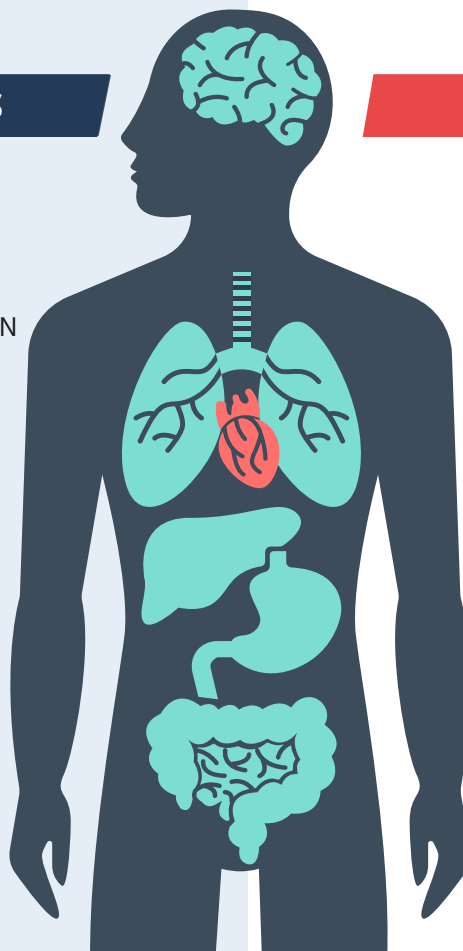
SHORT-TERM EFFECTS

- ALLERGIC REACTIONS
- EYE INFECTIONS
- NOSE AND THROAT IRRITATION
- BRONCHITIS
- PNEUMONIAS
- HEADACHE AND NAUSEA
- RESPIRATORY DISTRESS
- ASTHMA ATTACKS



LONG-TERM EFFECTS

- CHRONIC RESPIRATORY DISEASES
- LUNG NEOPLASIE
- HEART DISEASES
- BRAIN AND NEUROLOGICAL DAMAGE
- DAMAGE TO THE INTERNAL ORGANS
(for example, liver and kidneys). .





SKYLED USES TWO PURIFICATION SYSTEMS

A double technology that offers guaranteed results (Skyled is silent and suitable for places of interaction or resting places.)

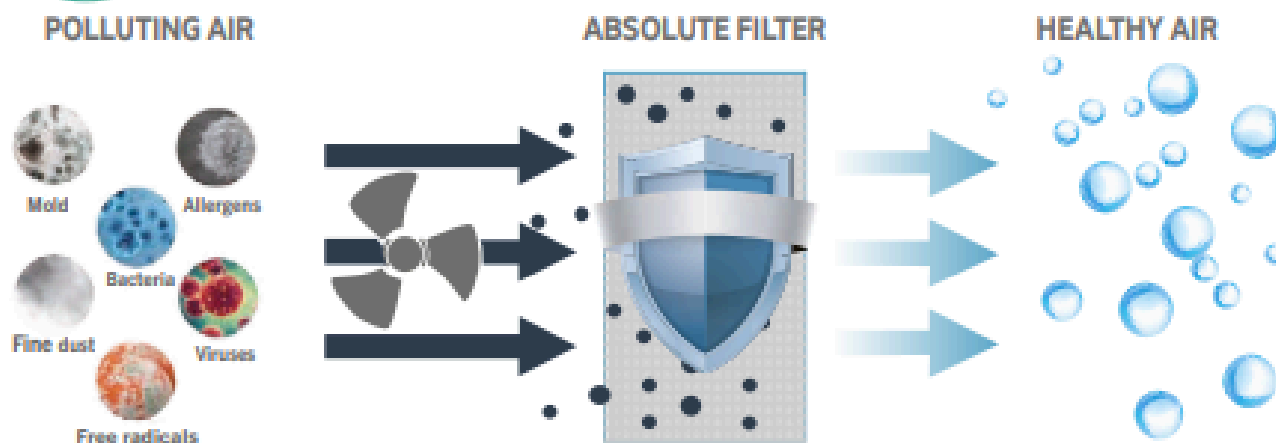
It uses an absolute filtration system Class H CERTIFICATE, which is effective in removing fine powders (PM10, PM2.5 and PM1), viruses, bacteria, pollen, which are present in the air up to 99.995%; this is **one of the highest levels of filtration certified by the European standard EN 1822: 2010 available nowadays.**

It also used for air treatment when high sterility is required, such as operating rooms, pharmaceutical and electronics industries, laboratories and hospitals.



1ST PHASE: PURIFICATION THROUGH FILTRATION

IT ELIMINATES UP TO ONE THOUSAND OF A MILLIMETER (PM1).





GREEN TECHNOLOGY ALREADY PRESENT IN NATURE

The technology of SkyLED air purifier makes use of the same processes used by plants to transform carbon dioxide into oxygen through chlorophyll photosynthesis.

The photocatalytic process was discovered by the Japanese Akira Fujishima in 1972 and then was regulated by NASA to be used in places where the maintenance of environmental sterilization was essential. It was then studied and developed by hundreds of universities, as well as public and private research centers. It is a safe system to hinder pollution in confined spaces. From all these research and development studies, was born the technology used by SkyLED.

HOW DOES IT WORK?

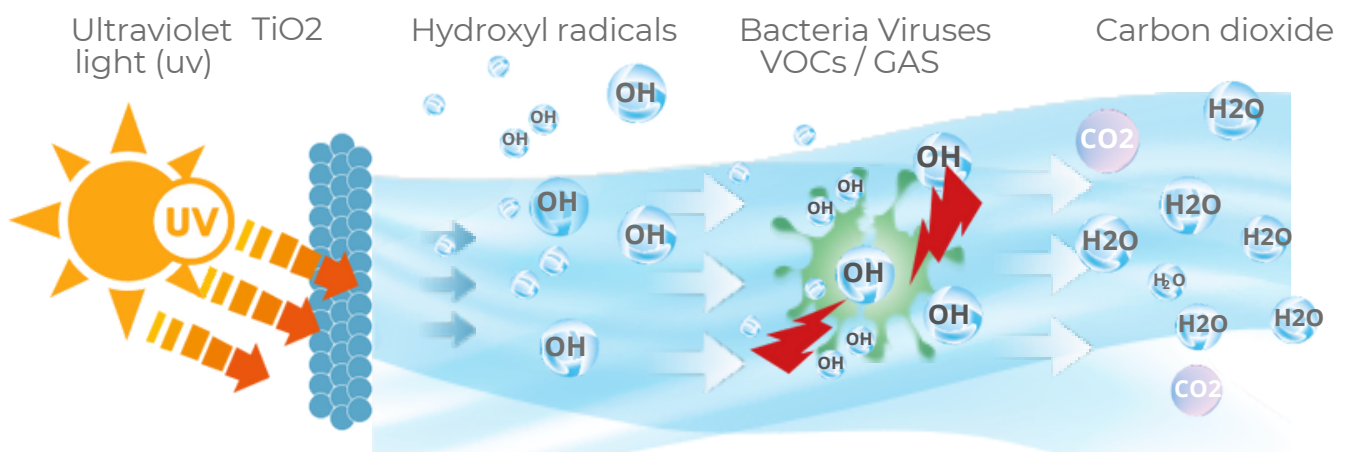
The natural oxidation process is not visible to our eyes, but the SkyLED air purifier produces it constantly, 24 hours a day, as it happens in nature.

Electrons are released from the surface of the titanium dioxide catalyst (TiO_2), when UV light illuminates it. The electrons interact with the water molecules, which are present in the air, breaking them into hydroxyl radicals (OH), highly reactive, i.e. neutral forms (without charge) of hydroxide ions (OH).

These hydroxyl radicals attack the larger organic polluting molecules (carbon based), breaking their chemical bonds and turning them into harmless substances like carbon dioxide and water ($\text{CO}_2 + \text{H}_2\text{O}$).

2ND PHASE: PURIFICATION THROUGH ELECTRONIC FILTER

IT ELIMINATES POLLUTANTS BELOW ONE THOUSAND OF A MILLIMETER (PM_{10}).



Clean air,
ideal for
those who
suffer from
allergies



HEALTHY, CLEAN AND PURIFIED AIR

Pure air, water molecules and carbon dioxide come out from
Skyled.



Eliminates pollutants,
bacteria and
bad smells



4 speeds



Energy
saving



Silent
mode



INTAKE OF CONTAMINATED AIR

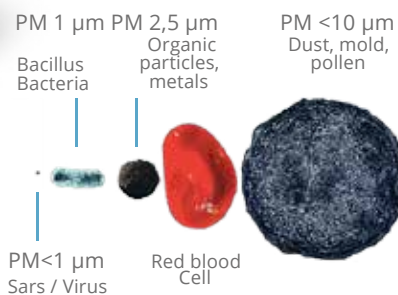
ELECTRONIC FILTER

HYDROXYLES ARE
PRODUCED IN THE INTERIOR
CHAMBER, CLEANING AIR
FLOW FROM:

- VIRUS
- BACTERIA AND BAD SMELLS
- MOLDS
- CHEMICAL SOLVENTS
- FORMALDEHYDE
- CARBON MONOXIDE
- POLLEN AND ALLERGENS
- AND MANY OTHER
POLLUTANT PARTICLES

CLASS H14 ABSOLUTE FILTER

*** EFFECTIVE UP TO 99.995%.**
**HOLDS THE SMALLEST
MICROPARTICLES UP TO 1
MILLESIMO OF MILLIMETER**



MAXIMUM RELIABILITY AND DURABILITY OVER THE YEARS

The catalytic reactor is maintenance-free because it is located in a protected area above the absolute filter. High power UV LEDs with a duration of over 10 years allow the purifier to be effective over time.

Skyled is a durable, natural and
ecological solution.



Thanks to the
absolute filter,
Skyled ensures more
hygienic and cleaner
surfaces



CONSTANT PROTECTION OVER TIME

Paying attention to the quality of the air is an important aspect, if you want to aim at a healthy and happy life. Thanks to SkyLed, it is finally possible to ensure a healthier and safer future for us and our children.

ADVANTAGES AND BENEFITS

Without the limitations present in older generation products and technologies, with its double purification, SKYLED keeps constantly pure air and cleaner surfaces, with an exceptional level of effectiveness. Without spreading harmful substances in the air and without creating polluting and toxic waste in closed spaces, SKYLED quickly eliminates harmful agents and smells, and our guests, customers and visitors will immediately feel a sensation of cleanliness, care and refinement.

CLEAN AIR

Benefits for people

- Improves sleep quality.
- Improves respiratory functions.
- Reduces the spread of bacterial and viral illnesses carried by the air.
- Reduces headaches caused by closed rooms.
- Helps stabilization after physical effort.
- Reduces the risk of cardiovascular and respiratory diseases.

Benefits for indoor environments

- Eliminates microorganisms and reduces their proliferation.
- Eliminates smells, without the use of chemical products.
- Eliminates mold spores in the air.
- Eliminates chemical contaminants (VOC) present and produced in closed spaces.
- Eliminates polluted micro particles.
- Reduces the deposit of dust on floors and furniture.
- Immediate sensation of care and cleanliness.
- No environmental impact.



SKYLED IMPROVES THE QUALITY OF CLOSED SPACES:

- Home
- Workplaces
- Offices and professional studios
- Hotels, restaurants and bars
- Dental studios, doctor cabinets
- Veterinary clinics
- Physiotherapy centers
- Pharmacies and healthcare
- Beauty centers, hairdressers, solarium
- Gyms, fitness rooms, dance schools.

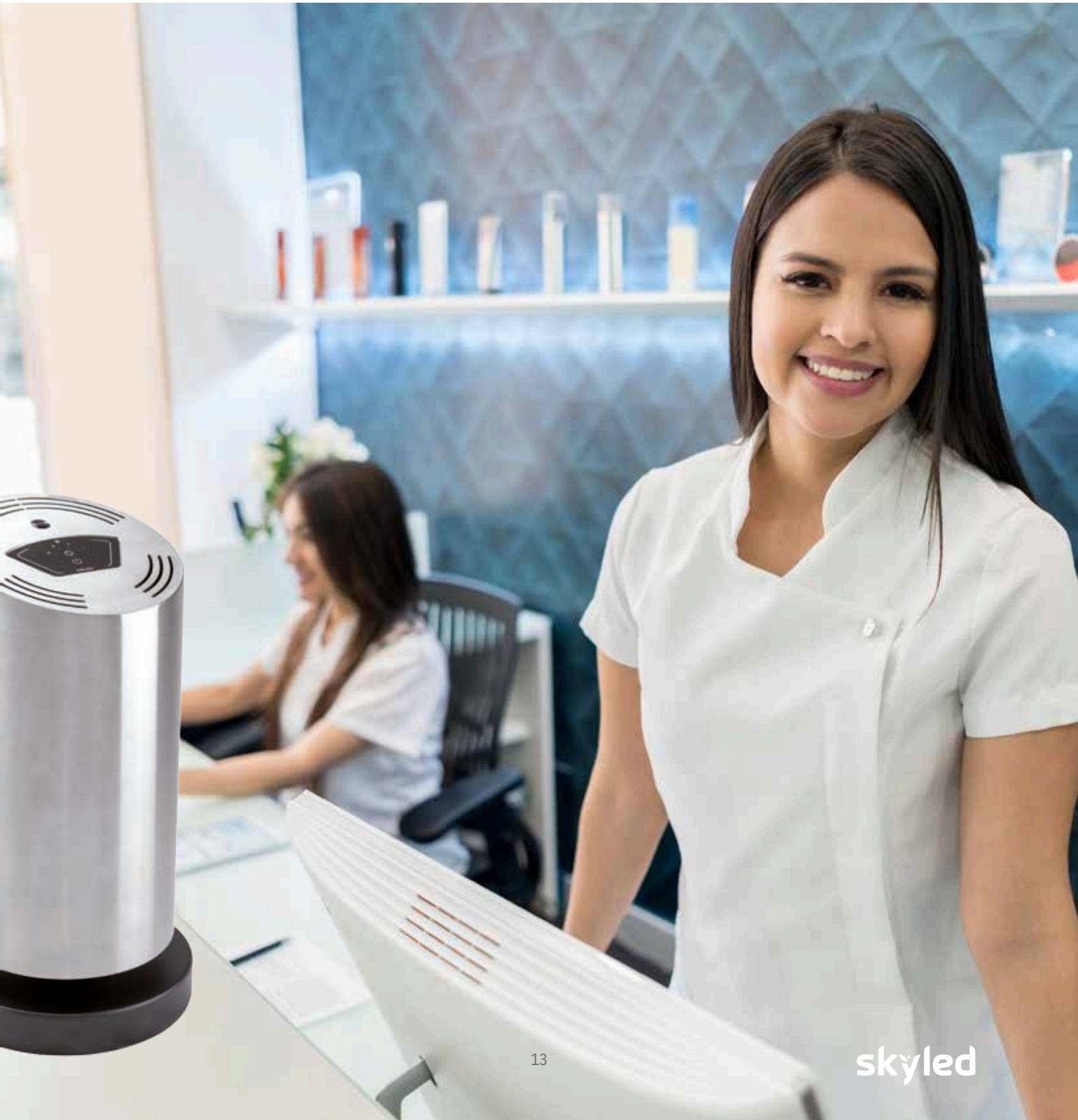


SkyLED,
certificated filters
by the European
Standard EN-
1822-1:2019



skyled

Skyled is a preventive solution against the transmission of infections carried by the air in crowded places.



Standard size:	base:	Ø 240 mm
	body:	Ø 204 mm
	height:	h 470 mm
with stand (optional):	base:	Ø 300 mm
	body:	Ø 204 mm
	height:	h 890 mm
Weight:	7,4 kg -	15,7 Kg with stand
Materials:	stainless steel	
Operating Power:	12 Vdc - 2,5 Ampere	
Electricity supply:	100/240 Vac	
Fan:	4 speeds	
Air Filter:	H13 type (H14 optional)	
Supplementary sanitising technologies:	Photocatalytic reactor (UV LED + TiO2)	
Protective filter:	washable	
Consumption:	30 Watt	
Fan power:	320 m3/h	
Volume filtered air:	+/- 100 m3/h	

Skyled with stand (Optional)

Skyled



www.cleansci.be