



Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO SERIES

Air sanitisers and purifiers
for commercial use





Air is life

*It is possible to live for weeks
without eating, for some
days without drinking, **for very few
minutes without breathing.***

THERE IS NO LIFE WITHOUT AIR

*It cannot be seen, it cannot be
felt, its actual presence cannot be
perceived. However, it is the only
element in the world that we use
from birth to death and without
which our lives could not exist.*



THE IMPORTANCE OF AIR PURIFICATION AND SANITISATION

To improve the quality of life

We breathe about 15 times a minute, 900 times in an hour, 22,000 times in 24 hours. On average, we introduce **10,000 litres of air a day** in our lungs.

This air is often very polluted, especially in closed environments; in fact, the air we breathe at home or in the office is very often more polluted than the air that we breathe in the streets of our cities.

This can seriously put our health at risk. Nevertheless, human beings have always paid more attention to what they eat or

drink than to what they breathe. If this behaviour could have been acceptable until a few decades ago, nowadays, due to the progressive environmental degradation and worsening of the air quality, we are bound to, in order to preserve our well-being and health, protect the air quality by removing chemical, physical, biological polluting agents, dust and impurities, thus restoring that purity which, after decades of mindless emissions, we have taken away from the air.

**AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19**



The DEPURO PRO EVO products kill COVID-19 thanks to the photocatalysis module, whose effectiveness is certified by the University of Milan in cooperation with the Department of Biomedical and Clinical Sciences of the Hospital “Luigi Sacco” of Milan.

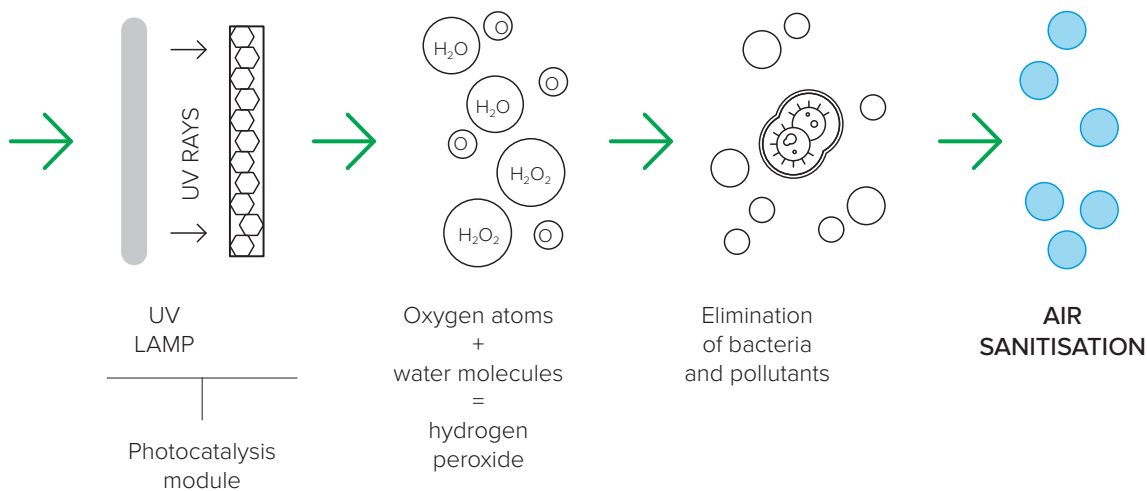


Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



How a photocatalytic system works*



**Schema purely as an example of a generic photocatalysis process.*

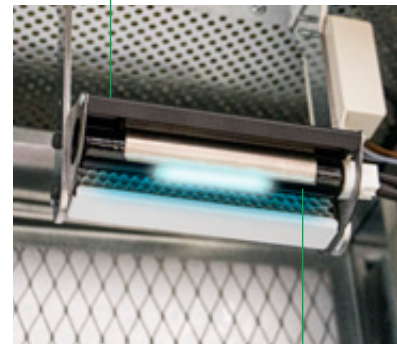
Photocatalysis module

The photocatalysis unit used is based on the photocatalytic oxidation process (used in hospitals and in the aerospace, medical and food industries), which is a natural phenomenon that occurs in the presence of ultraviolet rays from the sun, air humidity and of some noble metals.

The combination of these three factors triggers the release of oxidising ions capable of neutralising the majority of pathogens in the air, which are potentially dangerous to our health. The DEPURO PRO EVO ultraviolet (UV) lamp illuminates a catalyst made from a special alloy based on titanium dioxide (TiO₂), which causes a photochemical reaction where oxygen (O) atoms bind with molecules of water (H₂O) dissolved in the air in the form of vapour.

The hydrogen peroxide molecules (H₂O₂) generated from this reaction are sufficient to eliminate most of bacteria, viruses and allergens present both in the air and on surfaces, SANITISING THEM. The estimated service life of the UV-C lamp is two years.

Metal housing which encloses the electronic transformer of the UV lamp.



Titanium dioxide catalyst (TiO₂) which encloses the UV lamp.



RIASSUNTO CONCLUSIVO

DICHIARAZIONE EFFICACIA TECNOLOGIA DUST FREE

Dalla sperimentazione condotta all'interno del Dipartimento di Scienze biomediche e cliniche "Luigi Sacco" si evince che la tecnologia Dust-Free FC UNIT 3" ha mostrato capacità di abbattere la carica virale di SARS-CoV-2 inoculata in fase liquida sia su una superficie che su un tessuto.

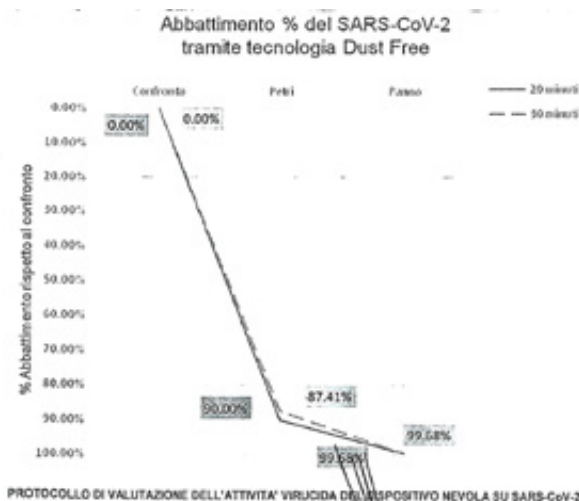
L'abbattimento verificato sul petri inoculato di SARS-CoV-2, esposto all'aria trattata per 20 minuti in un volume di 2,13 m³, ha mostrato una riduzione di 1.0 log (90.0%) maggiore rispetto al decadimento naturale del virus verificato nella prova di controllo, eseguita a pari condizioni, ma senza tecnologia Dust Free.

L'abbattimento verificato sul panno costituito per il 45% in polietere e 55% cellulosa, inoculato di SARS-CoV-2, esposto all'aria trattata per 20 minuti in un volume di 2,13 m³, ha mostrato invece una riduzione di 2.5 log (99.7%) maggiore rispetto al decadimento naturale del virus verificato nella prova di controllo, eseguita a pari condizioni, ma senza tecnologia Dust Free.

Il ventilatore impiegato ha portata d'aria pari a 35 mch.

PROTOCOLLO DI VALUTAZIONE DELL'ATTIVITA' VIRUCIDA DEL DISPOSITIVO NEVOLA SU SARS-CoV-2

	NOME	FUNZIONE	FIRMA	DATA
Redatto da	David Motta	Principal Investigator		09/11/2020
Revisionato da	Luca Gatti	Committente (Air-Control Srl)		09/11/2020
	Luca Tabanelli	Produttore Nevola (Kemin Textile Srl)		09/11/2020
Approvato da	Maria Rita Giomardo	Supervisore		9/11/2020



PROTOCOLLO DI VALUTAZIONE DELL'ATTIVITA' VIRUCIDA DEL DISPOSITIVO NEVOLA SU SARS-CoV-2

Dipartimento di Scienze biomediche e cliniche "Luigi Sacco"
Via G.B. Grassi, n°74 - 20157 Milano, Italy



Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO **EVO**

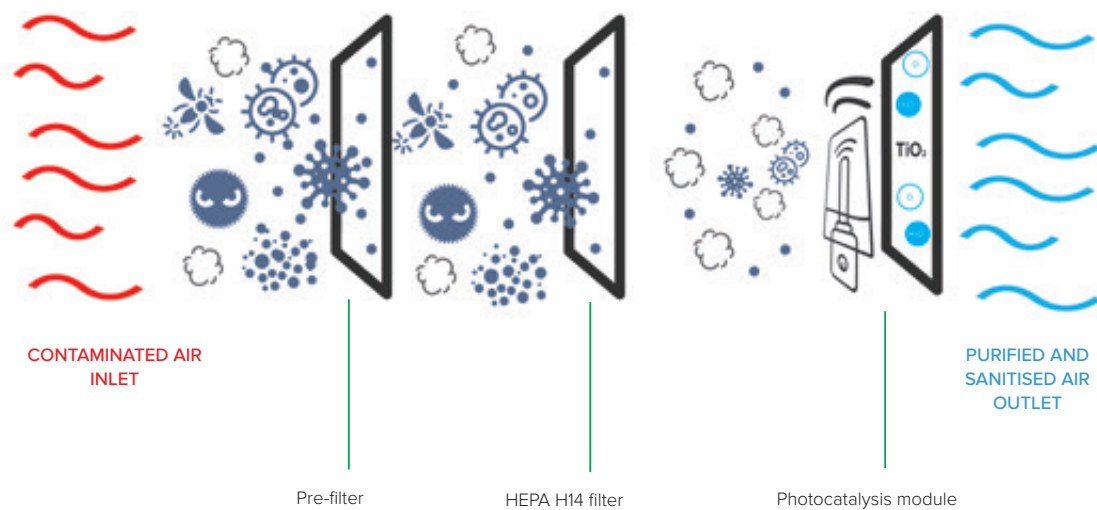
Air sanitisers and purifiers

The DEPURO PRO EVO Series is equipped with the technology able to kill COVID-19.

Both air purification and sanitisation, thanks to the certified technology of photocatalysis, are able to synergically act on pathogens such as viruses and bacteria by removing them, thus ensuring people's health and safety in closed environments.

PRODUCT	CODE	V~50/60Hz	W max	A max	RPM max	MAX FLOW RATE (m ³ /h)	SURFACES UP TO (m ²)	Lp dB (A) 6m	TEMP. °C min/max	WEIGHT Kg
DEPURO PRO EVO 150	25089	220-240	34	0.40	3,980	300	50	41	-25/50	30
DEPURO PRO EVO 300	25090	220-240	78	0.70	3,600	600	100	44	-25/50	50

Filtering and sanitising process





STOP
COVID-19

2 HEPA H14 FILTERS, capable of retaining up to 99.995% of microparticles (equivalent diameter $\leq 0.3\mu\text{m}$).

Panels with quick release closure devices, providing easy access to the filters.

Quiet operation, guaranteed by sound-absorbing sandwich panels.



Plug&Play.



STOP
COVID-19

Photocatalysis module

Control panel for the adjustment of Depuro Pro Evo.



Equipped with Brushless motors.



Low consumption.



Power cable 3 metres long with Shuko plug.

Easily portable, thanks to 4 wheels for an easier movement of the product.





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19

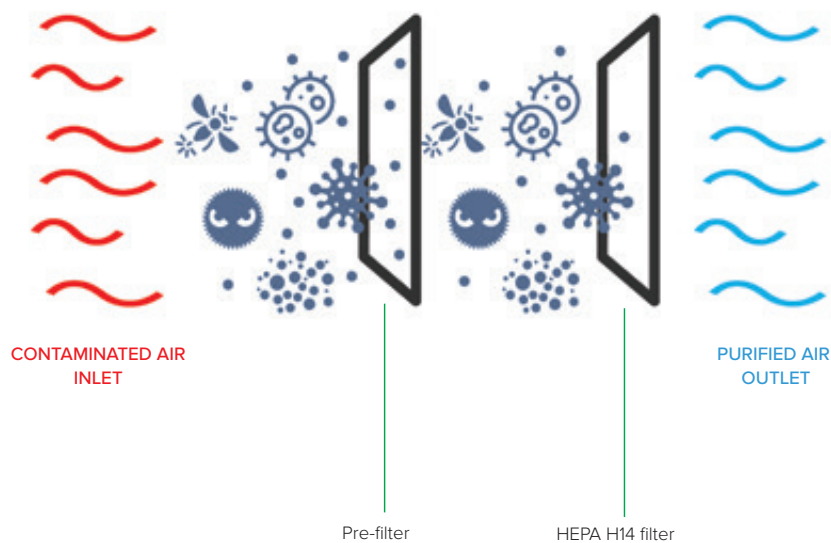


DEPURO PRO Air purifiers

IT IS proven that fine dust and the droplets emitted when we sneeze and breathe are potential vectors for the spread of viruses, including COVID-19, in closed environments. The DEPURO PRO products, thanks to the action of the two HEPA H14 filters, are able to retain up to 99.995% of pollutants and to reduce the risk of pathogens such as COVID-19, viruses and bacteria.

PRODUCT	CODE	V~50/60Hz	W max	A max	RPM max	MAX FLOW RATE (m ³ /h)	SURFACES UP TO (m ²)	Lp dB (A) 6m	TEMP. °C min/max	WEIGHT Kg
DEPURO PRO 150	25038	220-240	34	0.40	3,980	300	50	41	-25/50	30
DEPURO PRO 300	25039	220-240	78	0.70	3,600	600	100	44	-25/50	50

Filtering process





STOP
COVID-19

2 HEPA H14 FILTERS, capable of retaining up to 99.995% of microparticles (equivalent diameter $\leq 0.3\mu\text{m}$).

Quiet operation, guaranteed by sound-absorbing sandwich panels.



Panels with quick release closure devices, providing easy access to the filters.



Plug&Play.



Equipped with Brushless motors.



Low consumption.

Control panel for the adjustment of Depuro Pro Evo.



Power cable 3 metres long with Shuko plug.

Easily portable, thanks to 4 wheels for an easier movement of the product.



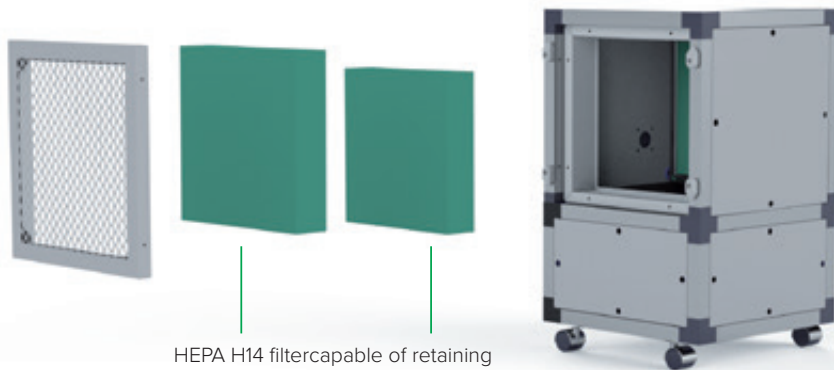


Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19

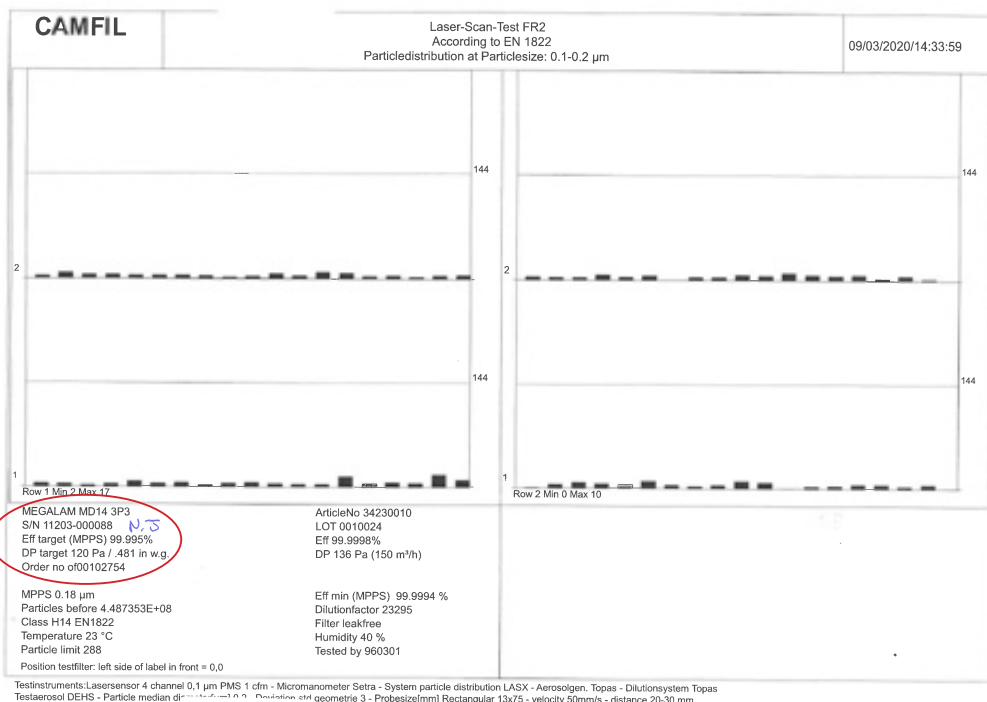


Purification: HEPA H14 filter capable of retaining up to 99.995% of microparticles (equivalent diameter 0.3µm).



HEPA H14 filter capable of retaining up to 99.995% of microparticles (equivalent diameter 0.3µm)

Certification of the effectiveness of the HEPA H14 filter



SOME OF OUR APPLICATIONS

Health and sport facilities, places of worship and aggregation, schools, commercial, industrial and services sector.

Health



Sports



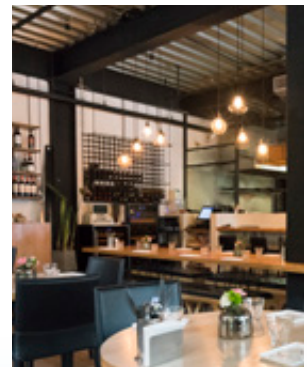
Worship



School



Commercial





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO

Udinese Calcio 1896 DACIA Arena Stadium, locker rooms and entrance of the commercial area



DEPURO PRO

Udinese Calcio 1896 DACIA Arena Stadium, press room



DEPURO PRO

Udinese Calcio 1896 DACIA Arena Stadium, entrance of the commercial area





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO

Hockey Club Ambrì Piotta Locker room - Switzerland



DEPURO PRO
Hockey Club Lugano Locker room - Switzerland





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO
Professional practice - Barcelona - Spain



DEPURO PRO
Business - Barcelona - Spain



DEPURO PRO
School Kindergarden - Montagnola Lugano - Switzerland





DEPURO PRO
NHS hospitals in Essex (UK)



DEPURO PRO
Pharmacy - Bernasconi Bironico - Switzerland

DEPURO PRO
Pharmacy - Barcelona - Spain





Air is life

AN EFFECTIVE TECHNOLOGY AGAINST COVID-19



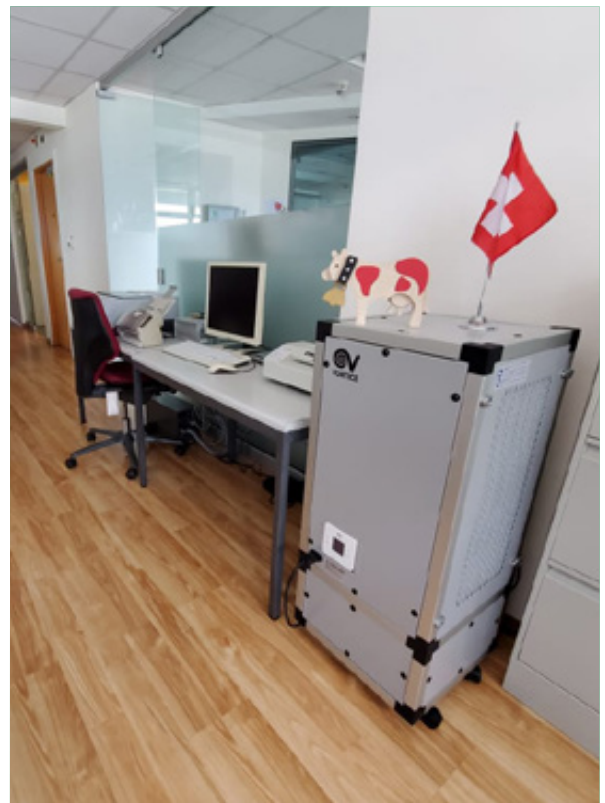
DEPURO PRO
Fitness centre - Lugano - Switzerland



DEPURO PRO
Business - Barcelona - Spain



DEPURO PRO
Swiss Embassy - Costa Rica





DEPURO PRO
Restaurant - Barcelona - Spain

DEPURO PRO
School - Barcelona - Spain





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO at ITIS ALESSANDRO VOLTA
Institute of Higher Education - Lodi



DEPURO PRO
School
Tel Aviv - Israel

DEPURO PRO
Church and oratory of Merlino - Lodi





Air is life

AN EFFECTIVE TECHNOLOGY
AGAINST COVID-19



DEPURO PRO EVO

Polytechnic University of Catalonia - Barcelona - Spain



DEPURO PRO EVO

CASALS Ventilación operational headquarters offices
Sant Joan de les Abadesses (Girona) - Spain



DEPURO PRO EVO

Offices Thermador Groupe
St-Quentin - France



DEPURO PRO EVO

VORTICE S.p.a. entrance and reception - Tribiano (MI)





vortice.com

VORTICE GROUP COMPANIES

VORTICE S.P.A

Strada Cerca, 2
Frazione di Zoate
20067 Tribiano
(Milan) Italy
Tel. (+39) 02 906991
Fax (+39) 02
90699625 vortice.com

CASALS VENTILACIÓN AIR INDUSTRIAL S.L.

Ctra. Camprodon, s/n 17860
Sant Joan de les
Abadesses
(Girona) Spain
Tel. (+34) 972720150
casals.com

VORTICE LIMITED

Beeches House-Eastern
Avenue Burton on Trent
DE13 0BB United Kingdom
Tel. (+44) 1283-49.29.49
Fax (+44) 1283-54.41.21
vortice.ltd.uk

VORTICE LATAM S.A.

Bodega #6
Zona Franca Este
Alajuela,
Alajuela 20101
Costa Rica
Tel. (+506) 2201 6934
vortice-latam.com

VORTICE INDUSTRIAL S.R.L.

Via B. Brugnoli 3,
37063 Isola della Scala
(Verona) Italy
Tel. (+39) 045 6631042
Fax (+39) 045 6631039
vorticeindustrial.com

VORTICE VENTILATION SYSTEM

(Changzhou) Co.LTD
No. 388 West Huanghe Road
Building 19, Changzhou
Post Code: 213000 China
Tel. (+86) 0519 88990150
Fax (+86) 0519 88990151
vortice-china.com

