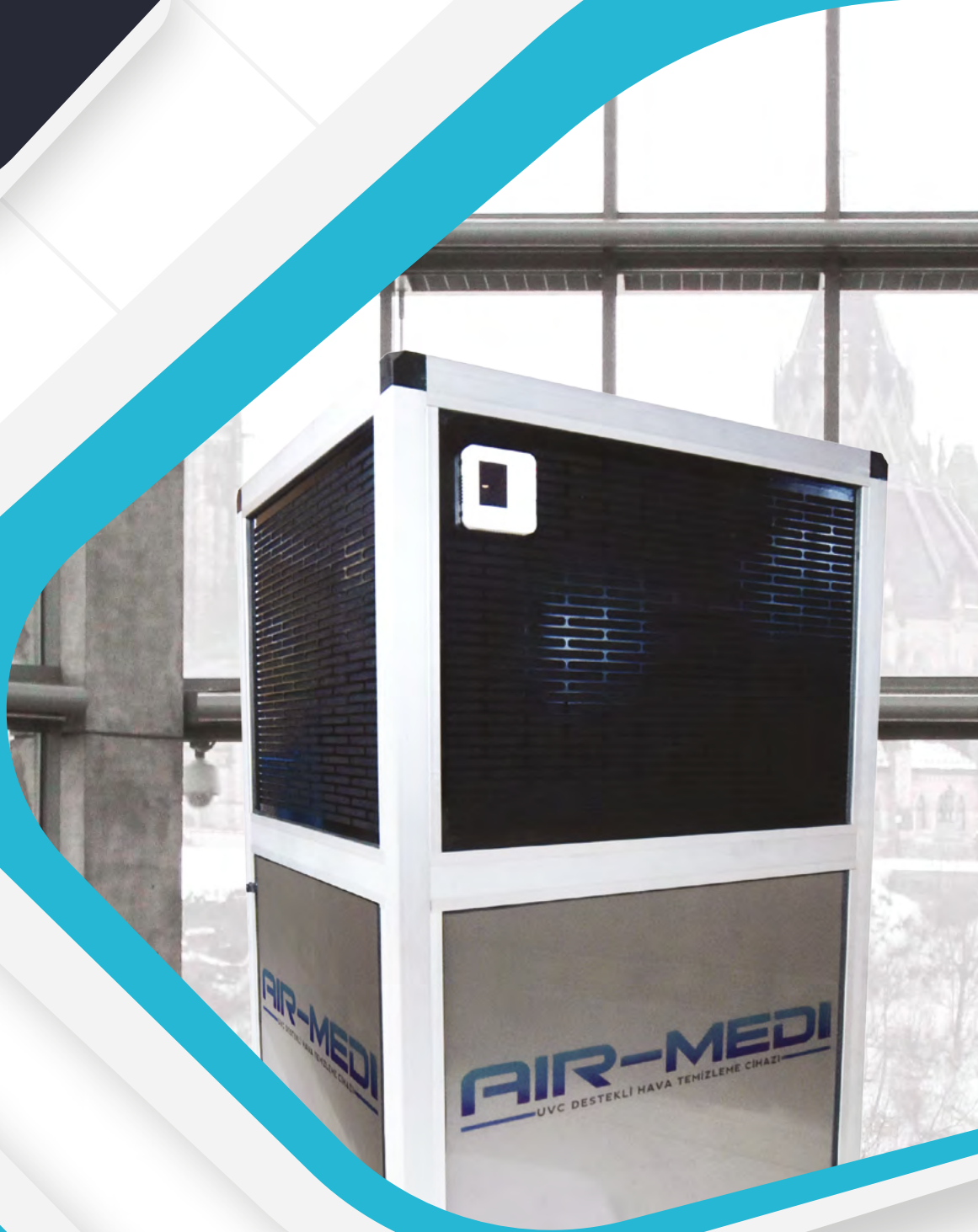
AIR-MEDI



APPROVED

Approved by
Ministry of Health
The ***FIRST*** and ***ONLY***

UVC SUPPORTED
AIR CLEANING DEVICE

marla Teknoloji

HYT GRUP 10.yıl

WHO WE ARE?

‘ ...An exemplary cooperation aiming at technology development and high production quality ... “

MARLA and HYT GRUP

Established in 2018, MARLA Teknoloji is an R&D company developing advanced technology systems for healthcare and defence sectors. The company carries out engineering, R&D and production activities in its 250 m^2 facility in Ankara, contributing to the national economy through innovative solutions and technology development.

Since 2012, HYT Group has been designing and manufacturing several types of industrial ventilation devices such as air handling units, heat recovery units and pool dehumidification units under the registered brand name “POINT Ventilation Devices”. The process and qulity management system have been recognised and registered by many domestic and foreign certification bodies, especially TSE, CE and ISO.

HYT Group carries on the production in its 5.000 m2 premises located in Ankara Saray District.

AIR-MEDI UVC SUPPORTED AIR CLEANING DEVICE

AIR-MEDI is an indoor air purification device used to clean ambient air with the support of filter array (G4, Activated Carbon and HEPA / H-14) and UVC light.
AIR-MEDI design process started in 2015 and the project received the 2016 First Prize in the EKIN PRE INCUBATION CENTER ENTREPRENEURSHIP COMPETITION OF BASKENT UNIVERSITY.
Produced by the technology support of IBUTEM and the production power of HYT Group, the contribution of the AIR-MEDI UVC SUPPORTED AIR CLEANING DEVICE to the public health will be a souce of pride for both companies.

Production

Design and R&D

Approved by Ministry of Health
The *FIRST* and *ONLY*
UVC Supported Air Cleaning Device

T.C.
SAĞLIK BAKANLIĞI
Halk Sağlığı Genel Müdürlüğü

AKTİF MADDE İÇERMEYEN BİYOSİDAL ÜRÜNLER BİLDİRİM KAYIT BELGESİ

Bildirim No:	062	Bildirim Tarihi:	30.12.2020
İmalatçı veya İthalatçı Adı:	HYT Grup Lojistik Taş. Mak. Tes. İml. Taah. İth. İhr. San. ve Tic. Ltd. Şti.		
İmalatçı veya İthalatçı Adresi:	Saray Mah. 195. Cad. No:3/A Kahramankazan/ANKARA		
İmalat Yeri Adı ve Adresi:	Saray Mah. 195. Cad. No:3/A Kahramankazan/ANKARA		
Vergi Dairesi:	Kahramankazan		
Vergi No:	4650371696		
Marka Adı:	Air Medi H-001-P		

Ürün Çeşitleri	Kullanım Amacı	Temas Süresi	Hedef Organizma
Air Medi H-001-P	UV-C Destekli Hava Temizleme Cihazı	Cihaz İç Yüzeyine 7 Saniye Maruziyette*	SARS-CoV-2 (COVID-19)

*V=0 m/s (Durağan durumda) 7 saniye uygulandığında.

02.08.2013 tarihli ve 28726 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren "Aktif Madde İçermeyen Biyosidal Ürünler Tebliği" gereği yukarıda adı geçen ürünlerin bildirim kaydı kabul edilmiştir.

Uzm. Dr. Bekir KESKİNKILIÇ
Bakan a.
Genel Müdür Yardımcısı


AIR-MEDI

USAGE AREAS

Maintaining air quality in closed spaces shared by the society is important for health. In areas where there is no ventilation, many bacteria that can be transmitted by respiration can contiue their activities by holding on to dust and particles in the air for a long time.

SPORT FACILITIES

AIR-MEDI provides portable medical grade air quality with particle holding filters, accuracy tested UV lamps and efficient motor.

COURT ROOMS

HEALTH INDUSTRY

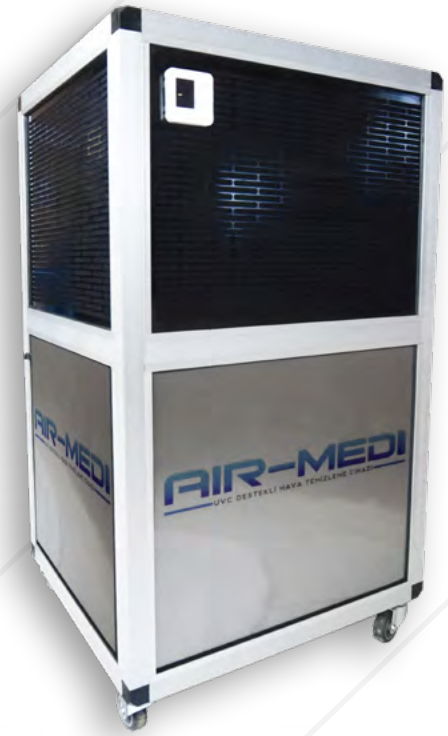
Difference from other systems; In AIR-MEDI, UVC technology has been used. Thanks to the patented UVC positioning and electronic components of AIR-MEDI, an effective dose management and absolute disinfection is provided.

HOLY PLACES

In AIR-MEDI, UVC lamps have a wavelength of 254 nm and neutralize bacteria and viruses. Its doing this by breaking the genetic coding in the DNA of microorganisms. Loss of the microorganisms' genetic instructions causes the microorganism to die and/or not be able to reproduce.

...and MORE

- Education
- Health
- Public Institutions
- Storage
- Automotive
- Information Technologies
- Services
- Industries
- Medicine
- Common Use Areas

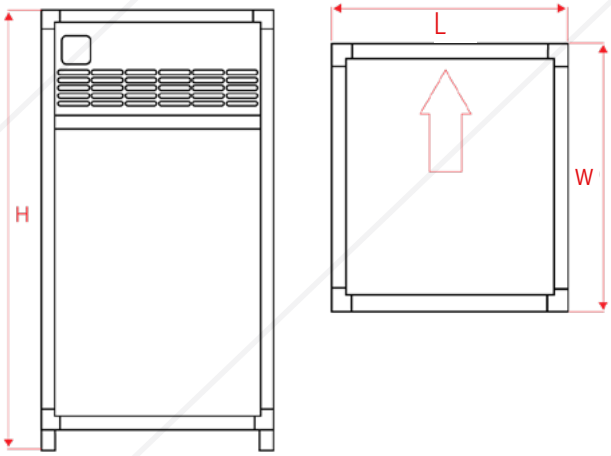


AIR-MEDI
UVC SUPPORTED AIR CLEANING DEVICE

UVC SUPPORTED AIR CLEANING DEVICE

The working principle of UVC assisted cleaners is that UV light penetrates the DNA or RNA microorganisms and neutralizes them by damagind their cell bonds. This pathogens such as spores, bacterie or viruses are made unable to reproduce. AIR-MEDI, which combines H-14 HEPA Filter and Support Filters with UVC techonogy in an innovative way; provides air cleaning in your rooms & offices that can be only in operating rooms.

- 120 W Medical UVC Technology
- Panel with Sound Insulation
- Panel with Heat Insulation
- Low Noise Level
- Filtration in Micron Level
- Instant Data Traking
- Made in TURKEY
- Ionized Technology (optional)
- Electrostatic Filter (optional)
- LCD Touchscreen

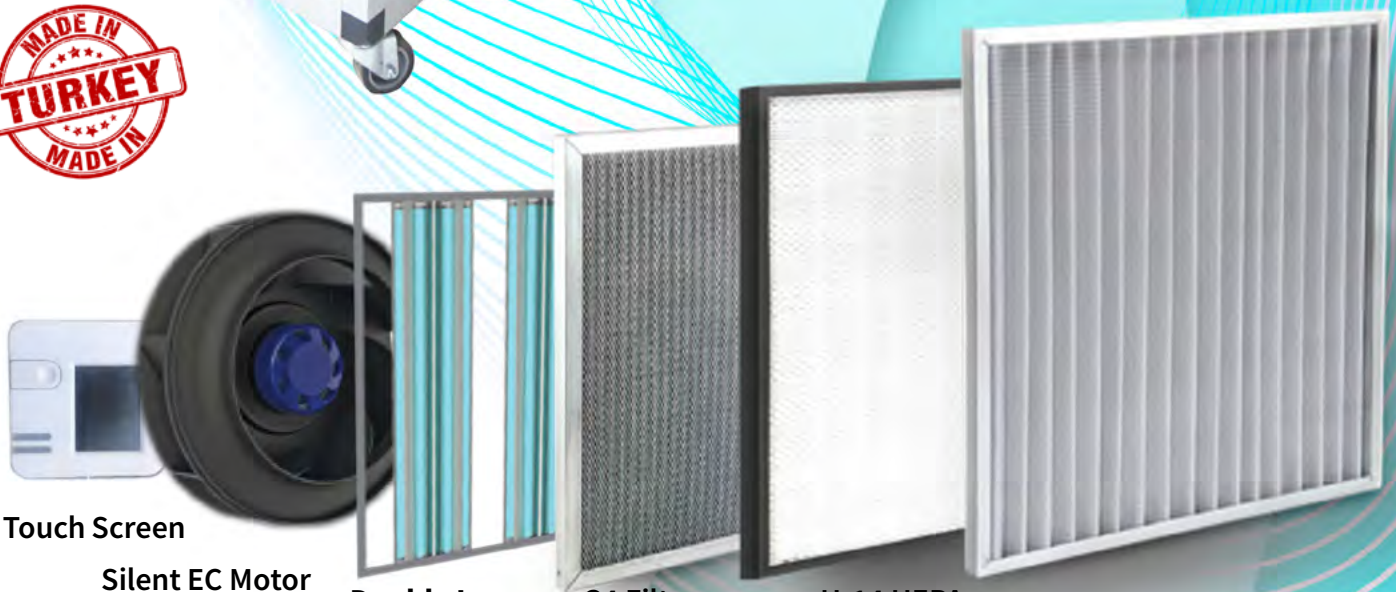


- The carrier part in the device is made of 1.5 mm galvanized sheet.
- The inner body of the device is made of galvanized sheet used in 1 mm thickness.
- 250/355 mm diameter backward inclined fan impeller and Electronically Controlled EC electric motor.
- 8 Pieces 15 W UVC lamp and electronic ballast system.
- Double skin panels with sound and heat insulation. Special design panel mounting system without screws and with sealed gasket.
- Specially designed aluminium profile frame.
- Lockable carrier wheels.
- 610 x 610 x 78mm HEPA Filter - H-14 Class
- 610 x 610 x 48mm ACTIVED CARBON Filter
- 610 x 610 x 48mm G4 Filter

AIR-MEDI

Approved by Ministry of Health
The **First** and **Only**
UVC Supported Air Cleaning Device

MADE IN TURKEY



LCD Touch Screen

Silent EC Motor

Double Layer UVC Lamp Array

G4 Filter

H-14 HEPA Filter

Activated Carbon Filter

What is the UVC Air Sterilization?

UVC Air sterilization is a UV sterilization system that is used for the air disinfection of the indoor enviroment where the air conditioning and ventilation system operate. C band is the most effective wavelengt against microorganisms. UVC provides a safe and effective air sterilization aganist contamination that may occur because of the microbiological agents.

What is the HEPA Filter?

HEPA's explanation is High Efficinecy Particulate Arresting. Hepa filters can remove particles up to 0.3 microns with the efficiency of %85 and above. Hepa filters are made of special fibers that do not require maintenance and have a structure similar to paper. These filters must be replaced within a certain period of time. It is recommended to replace the HEPA and ULPA filters in 6-12 months, depending on the pollution of the ambient air, the frequency of use and the pressure loss. Today, HEPA filters are used in operating rooms, hospitals and clean room applications due to their filtering performance, reliability and maintenance free structure, MDF, plastic or metal frame models for the HEPA filters are available.

What is the G4 Cassette Filter?

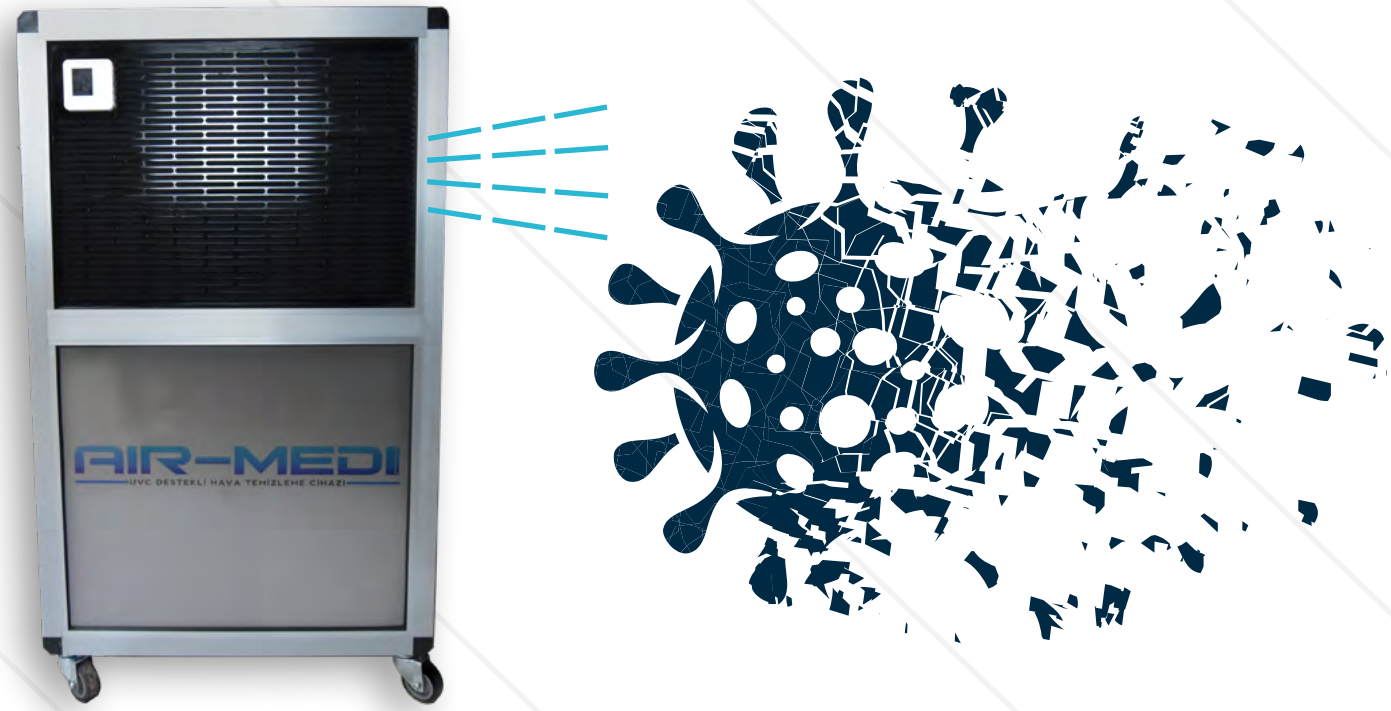
The cassette type panel filters are made of special fiber blend having controlled and renewable properties and have an extremely durable structure. The surrounding metal frame serves as a protection against the external impacts to the filtering media. The cassette type panel filters are provided as G2 [EU2] - G3 [EU3] - G4 [EU4] - G5 [EU5] class filters. Cassette filters are manufactured as the cellulosic based and fiberglass based products.

What is the Activated Carbon Filter?

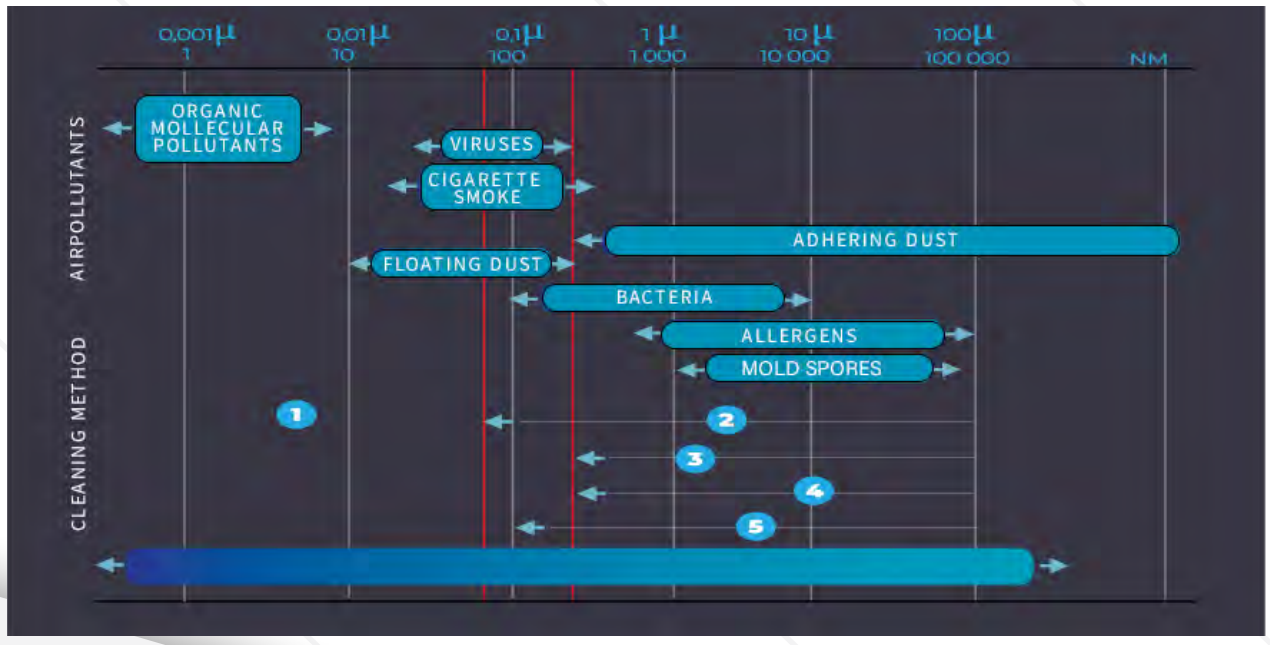
Activated carbon filter has the ability to capture and hold the gas molecules. The surface of the activated carbon filter consists of milions of tiny pores. Thanks to these pores, many odor-emitting toxic gases are caught. Activated carbon filters should be changed depending on the ambient air, pollution and frequency of use. For example, in a smoking environment the activated carbon filters need to be changed every 3 to 6 months.

AIR-MEDI
UVC SUPPORTED AIR CLEANING DEVICE

%99,9995
Disinfection



The International Ultraviolet Association (IUVA) endorses that UVC disinfection technologies play an important role in the multiple processes used to reduce the transmission of the virus that causes COVID-19, based on disinfection data and empirical evidence. UVC is a well-known disinfectant for air, water and surfaces which can help reduce the risk of COVID- 19 contagion when applied correctly.

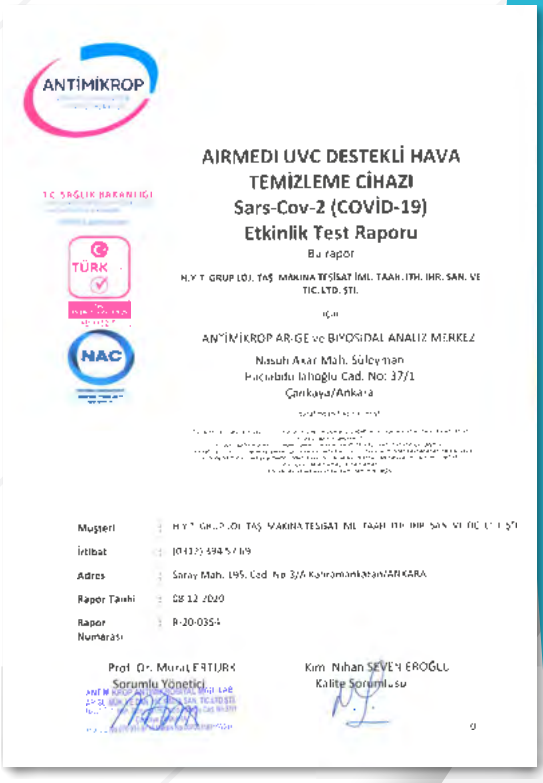


Some examples of effective dosage for virus and bacteria inactivation

for more information; www.iuva.org

TYPE	NAME	INACTIVATION DOSE (m3/cm²) 1°(90%)	2°(99%)	REFERENCE
BACTERIA	Legionella pneumophila	3,1	5,0	Wilson et al. 1992
	Salmonella enteritidis	5,0	7,0	Tosa and Hırata 1998
	Salmonella typhimurium	3,0	11,5	Maya et al 2003
	Shigella dysenteriae	0,5	2,0	Wılson et al 1992
	Shigella sonnei	3,2	4,9	Chang et al 1985
	Vıbrio cholerae	0,8	1,4	Wılson et al 1992
	Citrobacter diversus	5,0	7,0	Gıcsc ond D.:ırby 2000
	Tubeculosis	2,2	4,3	Collıns 1971
	Listeria monocytogenes	2,2	3,0	Collıns 1971
PROTOZOA	Cryptosporidium parvum	<2	<2	Clancy et al 2004
	Giardia lam blia	<10	-10	Campbell et al 2002
	Giardia muris	<2	<2	Mofıdı et al 2002
	Encephalitozoon intestinalis	3,0	5,0	Marshall et al 2003
VIRUS	Adenovirus 40	55,0	105,0	Thurston Enriquez et al 2003
	Echovirus II	7,0	14,0	Gerba et al 2002
	Hepatit is A	5,1	13.7	Wılson et al 1992
	Polıovirus Tıpo 1	5,7	11,0	Wılson et al 1992
	Rotavırus SA 11	8,0	15,0	Sommer et al 1989

Based on evidence that UVC light has been used for 40 years to remove viruses and bacteria from wastewater and pharmaceuticals products, including Corona viruses. Some viruses or bacteria may be more susceptible to UVC disinfection than others, but they can all be inactivated with appropriate doses. UVC light is used in hospital, medical and scientific techniques, always making specific reference to UV Germicide (UVC of 200-280 nm) and that under controlled laboratory conditions has scientifically demonstrated that it inactivates two Corona viruses close to SARS-CoV-2, such as SARS- CoV-1 and MERS-CoV.


ANTİMİKROP

AIRMEDI UVC DESTEKLİ HAVA TEMİZLEME CİHAZI
Sars-Cov-2 (COVİD-19)
Etkinlik Test Raporu

Bu rapor

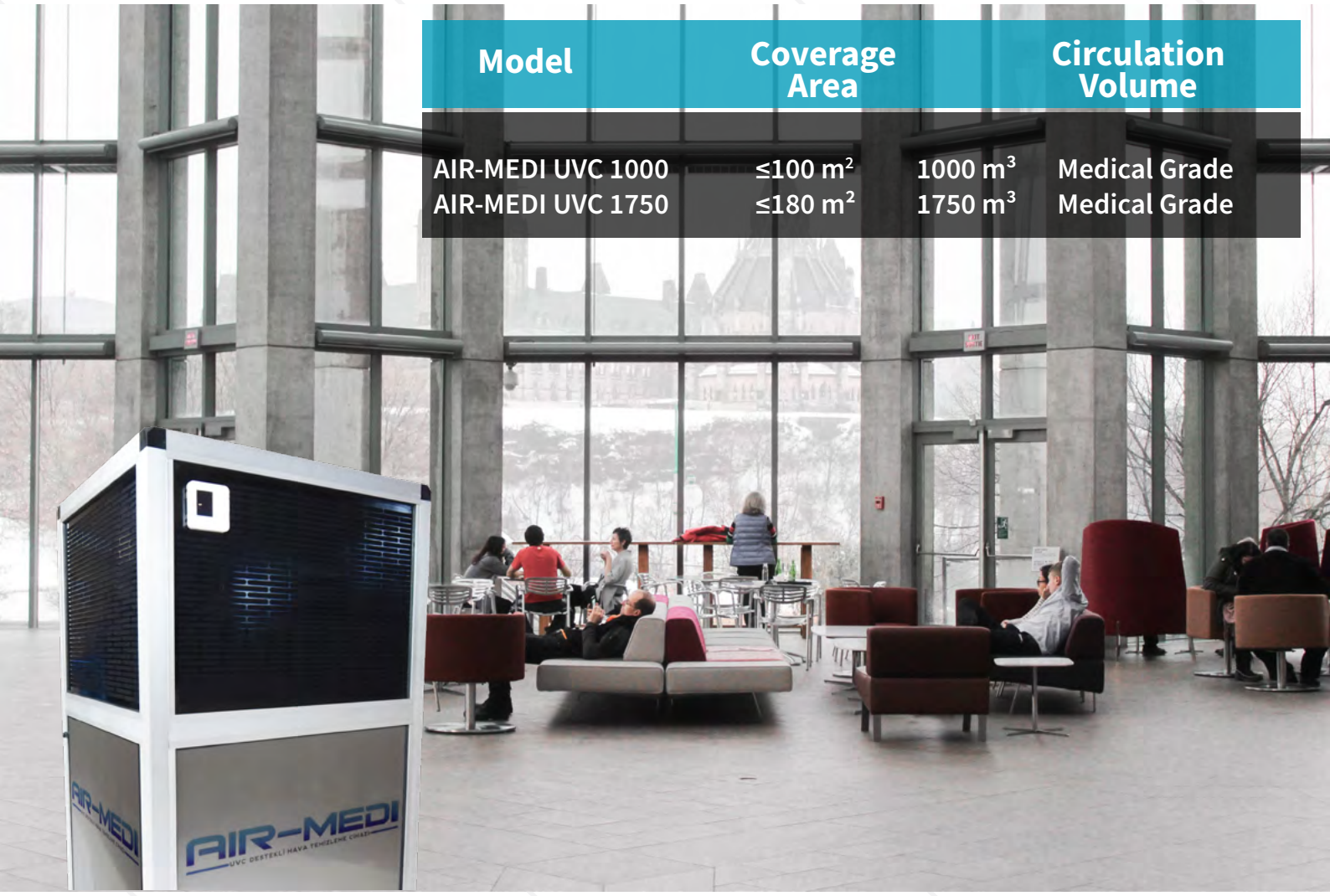
ANTİMİKROP AR-GE ve BİYOSİDAL ANALİZ MERKEZ
Nasuh Akar Mah. Süleyman Hakkıbıdı İahoğlu Cad. No: 37/1
Çankaya/Ankara

Müşteri
İrtibat
Adres
Rapor Tarihi
Rapor Numarası

Prof. Dr. Murat ERTÜRK
Sorumlu Yönetici

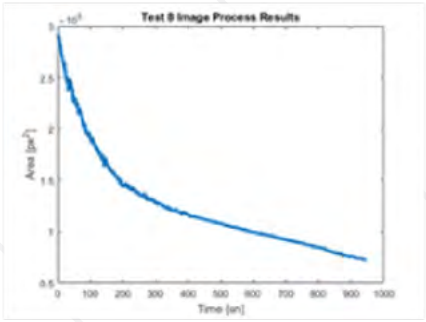
Kim Nihan SEVEN EROĞLU
Kalite Sorumlusu

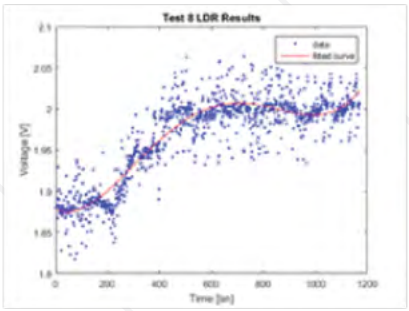
DEVICE CAPACITIES

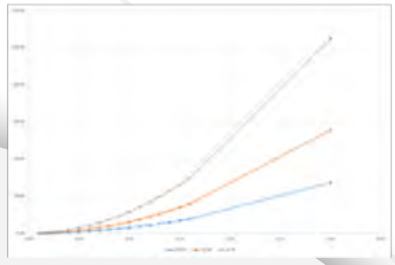


Model	Coverage Area	Circulation Volume	
AIR-MEDI UVC 1000	≤100 m^2	1000 m^3	Medical Grade
AIR-MEDI UVC 1750	≤180 m^2	1750 m^3	Medical Grade

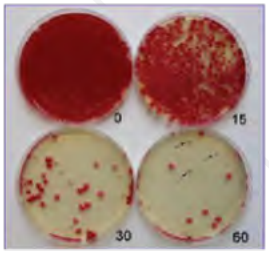
PERFORMANCE AND TEST GRAPHICS







MIKROBIOLOGICAL TEST FIGURES



ISO International Organization for Standardization **COMPLIES WITH ISO 15714**

BSI **COMPLIES WITH BS EN 16777**

CERTIFICATES


BAŞKENT ÜNİVERSİTESİ

ÖLÇÜMBİLİM (METROLOJİ) VE KALİBRASYON ARAŞTIRMA MERKEZİ

TEST ve DEGERLENDİRME ÇALIŞMASI

H.Y.T. GRUP
Firması için;

UVC Destekli Hava Temizleme Cihazı

TS EN 60204-1:2011 Standardına
Uygunluk Değerlendirme Raporu
Rapor No:BU-ÖKM-2020-08-01


UDEM

LVD DENEY RAPORU
LVD TEST REPORT


İBÜTEM AR-GE LTD. ŞTİ

METROLOJİ BİRİMİ

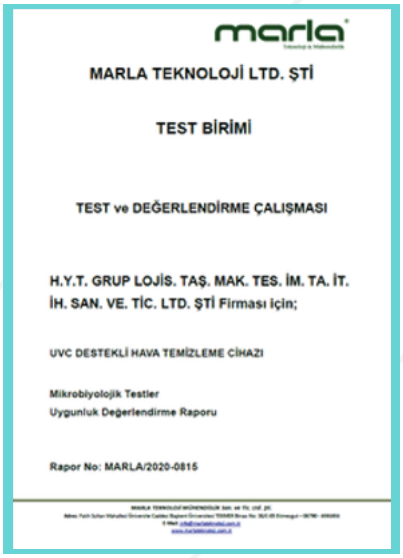
TEST ve DEĞERLENDİRME ÇALIŞMASI

H.Y.T. GRUP LOJİS. TAŞ. MAK. TES. İM. TA. İT.
İH. SAN. VE. TİC. LTD. ŞTİ Firması için;

UVC DESTEKLİ HAVA TEMİZLEME CİHAZI

TS EN 60204-1:2011 Standardına göre
Uygunluk Değerlendirme Raporu

Rapor No: ibütem/2020-08120


MARLA TEKNOLOJİ LTD. ŞTİ

TEST BİRİMİ

TEST ve DEĞERLENDİRME ÇALIŞMASI

H.Y.T. GRUP LOJİS. TAŞ. MAK. TES. İM. TA. İT.
İH. SAN. VE. TİC. LTD. ŞTİ Firması için;

UVC DESTEKLİ HAVA TEMİZLEME CİHAZI

Mikrobiyolojik Testler
Uygunluk Değerlendirme Raporu

Rapor No: MARLA/2020-0815


SERTİFİKA

ALÇAK GERİLİM YÖNETMELİĞİ
UYGUNLUK BEYANI ONAY SERTİFİKASI


AT UYGUNLUK BEYANI
(Declaration of Conformity)

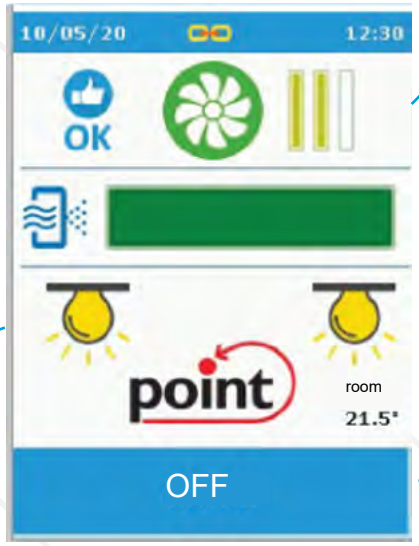
Yukarıda tanımlanmış ürünler için 2014/35/AB Alçak Gerilim Yönetmeliklerinin gerekliliklerini yerine getirdiğini ve sorumluluğunu üstlendiğini beyan ederiz.

We hereby declare that the products mentioned above, meet the requirements of the Low Voltage Directive 2014/35/AB. We take the responsibility declared by us.

IEC 60601	Electrical medical device test
IEC 60601-1	Electromagnetic compatibility
TS EN 62040-1	Uninterrupted power systems
IEC 60044-8	Electronic current
TS EN 60204	Safety şn electrical equipment of machines
EN ISO 10993	Biocompatibility assessment
EN ISO 14971	Risk assessment
TS EN 1507:2006	Leak test

CONTROL PANEL

This figure indicates whether there is an alarm at the time of operation. If there is no alarm Ok symbol appears. Pressing on it switches to the screen showing the active alarms and post alarms.



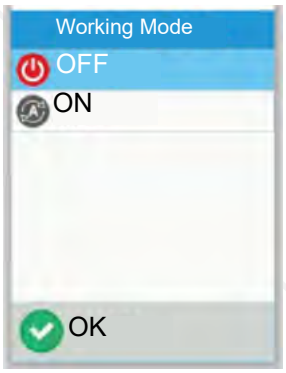
It shows the air flow level of the fan and when you press on it, Switches the Fon Level setting screen.

It shows the air filter contamination level.

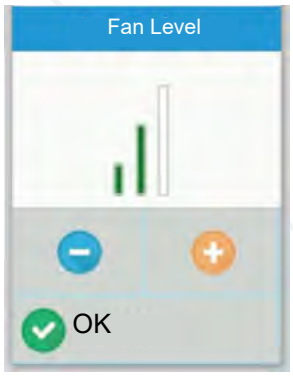
The R/H side figure shows the working status of Group 2 UV lamps.

The L/H side lamp figure shows the working statu of Group 1 UV Lamps.

It shows the device is working. Pressing on the figure switches to the screen where the working status is set.

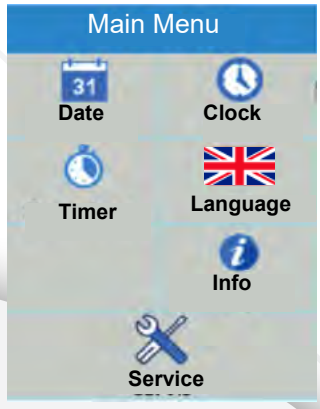


This is the screen where the operational status of the device is set. The operating status is selected from the list and confirmed by pressing the OK button.



This is the screen where the fan speed can be adjusted by the user while the device is running. The desired fan stage is selected with +/- buttons and confirmed by pressing the OK button.

It is the screen where the alarm conditions that occurred and continued during the operation are listed. By pressing the reports button, the reports screen, where the alarms that past are listed.



You can switch to the main menu by pressing the button on the panel while on the main screen. System Date, Time, Interface Language and Timer settings can be made in the main menu if it is desired to operate the time dependent device. By pressing the Info button, the information screen is passed on to the information about the system. The “Service” menu, in which the installation and service settings of the device are made, is accessed from this menu. In order for the service button to be active, the configration switch on the control card must be On. Otherwise, this option will not appear in the main menu.

AIR-MEDI

UVC SUPPORTED AIR CLEANING DEVICE

marla Teknoloji

HYT HAVALANDIRMA YALITIM TESİSAT 11.yıl

BAŞKENT ÜNİVERSİTESİ

T.C. SANAYİ VE TEKNOLOJİ BAKANLIĞI

KOSGEB

TÜBİTAK

EKİN Başkent Üniversitesi Ön Kuluçka Merkezi

AIR-MEDI

marla®
Teknoloji