SAHARAN ASEPTIZER

XRETON-P CW 5000/10000

Saharan Type Mobile
Air Conditioning and Air
Sterilization Device
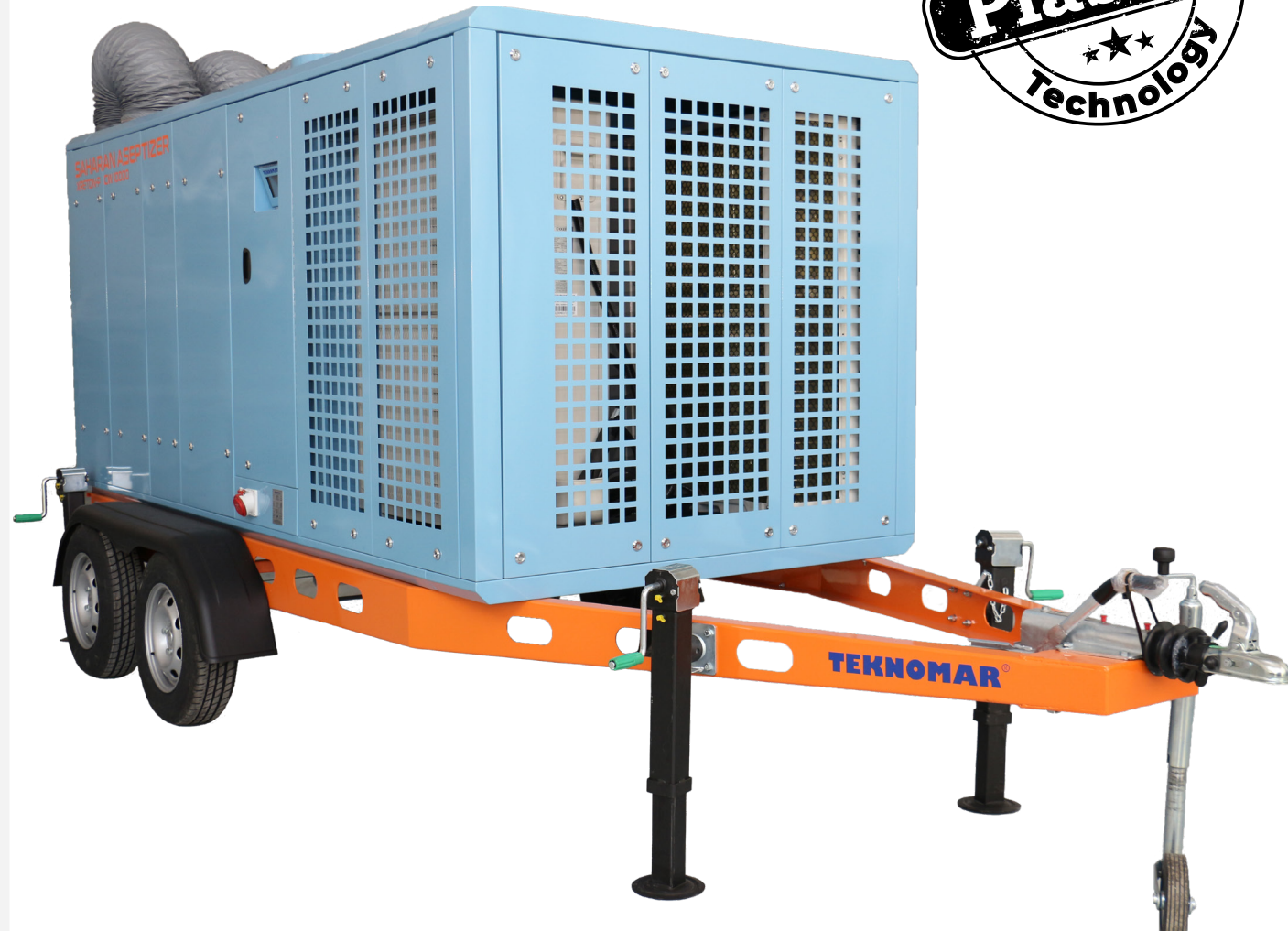
Atmospheric Plasma Technology

TEKNOMAR® Group
Since 1993

Getting to Know
TEKNOMAR GROUP

Who We Are?

Since 1993, TEKNOMAR has been producing high-tech products under the TEKNOMAR Brand in 8 different product groups and many sectors.

It broke new ground in Turkey with its R&D studies on Surgical Instrument Sterilization Devices, Air Cleaning and Air Conditioning systems, and became a pioneer in technology with Hydrogen Peroxide and HdrOzone Heavy Molecule Sterilization Devices, which are also included in the product group. It has made the world's largest device with 62,5 m³ in Industrial Voluminous Ethylene Oxide Gas Sterilizers.

It is a pioneer in particle and climate-controlled systems called aseptizers. In addition, it has done R & D studies of TOPIVAC NPWT Advanced Wound Care Devices and also produces them.

Exports to 68 countries with its economical products that are constantly developing based on customer satisfaction and produced without sacrificing quality. Our company; Compliance with ISO 9001.2015, ISO 13485.2016 medical device quality management system and MDD 93/42/EU – 2007/47/EU Medical Devices Directive on a product basis has been achieved. EU MDR 2017/745 compliance is also provided.

Mission

In order to meet the changing and increasing customer expectations, to follow the technological innovations, to make production at the desired quality standards by making continuous improvement and to be a reliable and company thar uses the country's resources effectively.

Continuing its activities by adhering to ethical values and achieving growth without distancing from the values of our country and Teknomar Group members will always be the target.
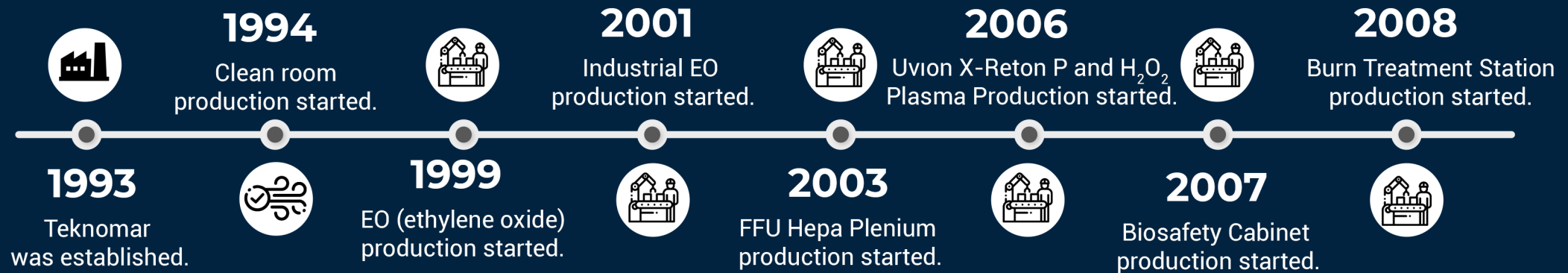
Vision

To be an entrepreneurial, customer-oriented, innovative and lean institutional medical device company.

Values

We:
love people, believe in ethical values, are environmentalist, are innovative, are customer oriented, are technology followers, care about our employees and teamwork.
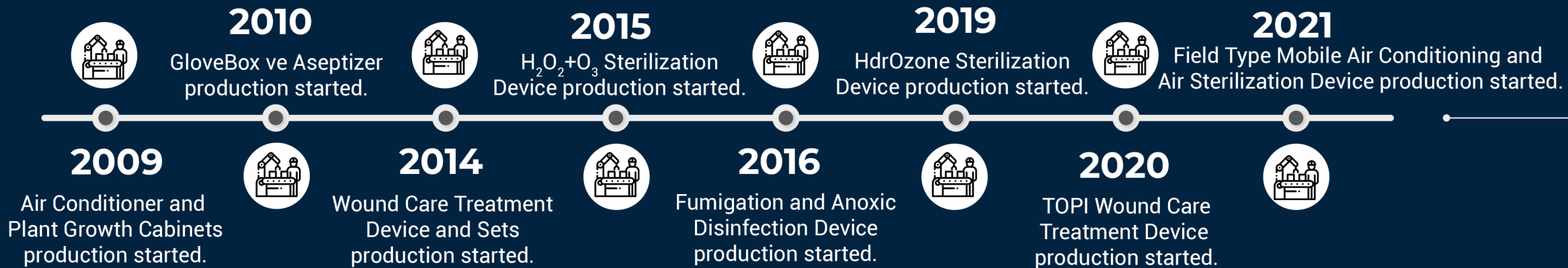
Our Production - R&D Story

From Past to Present

2010
GloveBox ve Aseptizer production started.

2015
$H_2O_2+O_3$ Sterilization Device production started.

2019
HdrOzone Sterilization Device production started.

2021
Field Type Mobile Air Conditioning and Air Sterilization Device production started.

2009
Air Conditioner and Plant Growth Cabinets production started.

2014
Wound Care Treatment Device and Sets production started.

2016
Fumigation and Anoxic Disinfection Device production started.

2020
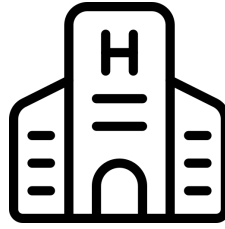TOPI Wound Care Treatment Device production started.

SAHARAN ASEPTIZER

It's a microbiological protection and contamination reduction, high-level particle cleaning, air conditioning device in airborne bacteria-virus sterilization.

Provides positive-negative air pressure and air-conditioning of the environment.

FIELD OF USAGE

- Field Hospitals

- Tent Type Field Hospitals

- Mobile-Trailer Type Field Hospitals

- Container Type Field Hospitals

- Hospitals for Disaster Area

- Military Field Hospitals

- Military Critical Field Command Centers

- Shed Type Hospitals etc.

Specially produced for field type and mobile hospitals. It can also be used as a stand-alone air conditioning device.

Minimizes the risk of possible epidemic and contamination in the environment where it is located.

Saharan Aseptizer provides maximum level of air sterilization in field use for military and civilian purposes.

SAHARAN ASEPTIZER

It can be used safely in all units of all kinds of mobile and/or fixed structured field hospitals where high hygiene and air conditioning are needed.

- Mobile Laboratory Unit
- Isolation Room
- Burn Treatments Room
- Triage Unit
- Isolation Room
- Operating Room Unit
- Emergency Unit
- Mobile Dialysis Unit
- Decontamination Room-Area
- Intensive Care Unit
- Military Field Hospitals
- Military Critical Field Command Centers etc.

GENERAL
SPECIFICATIONS

PATENTED TECHNOLOGY

*Registration No
2009 07999*

- Controls the heat, humidity, pressure and particle in the environment where it is used.

- Airborne particulate and biological decontamination provides.

- Has 5 different modes; 3 positive, 1 negative and 1 automatic.

- It is capable of providing POSITIVE and NEGATIVE pressure and has a decontamination system.

- Adjusts the air speed flow according to the filter efficiency with the speed compensation system.

HEPA FİLTER

- Man filter HEPA H14

  (99,999% retention for particles larger than 0.3 - 0.5 micron)

- Sealed HEPA Plenium Box conforming to DOP testing.
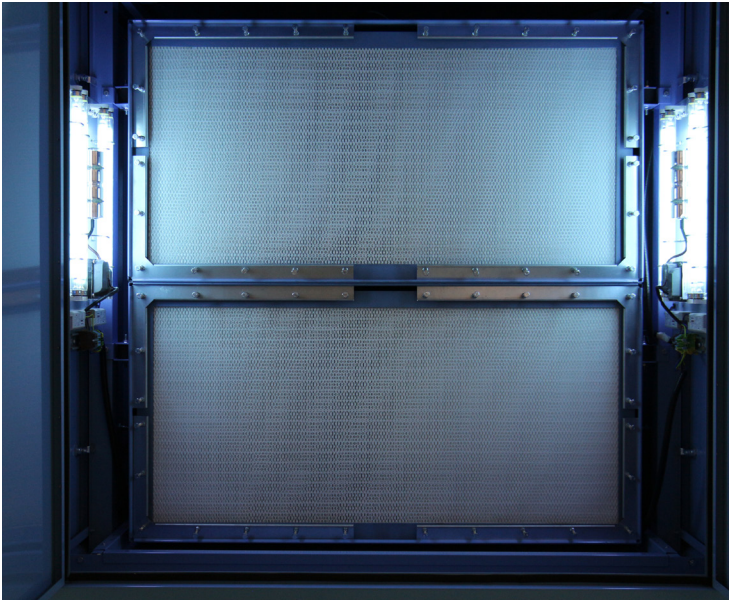
PRE-FILTERS

- Cleans the air taken and expelled from the external environment by using pre and waste filter application.

  (Eu4, Eu7, G4 Carbon)

ELECTRIC PANEL

- PLC controlled automation system.

- It has fully automatic automated control.

- The sensor group is sensitive to sensitive changes.

- With the use of Saharan aseptizers, the risk of possible contamination and epidemics is minimized.

- At maximum power, the measured volume is 55 Db.

- Installation time is short, easy to use and most importantly, it can feed 4 separate units at the same time.

- With its mobile design, the device works in all out weather conditions without the need for a special external area.

- The chassis of the Saharan Aseptizer device is especially made of steel and does not oxidize due to negative ions.
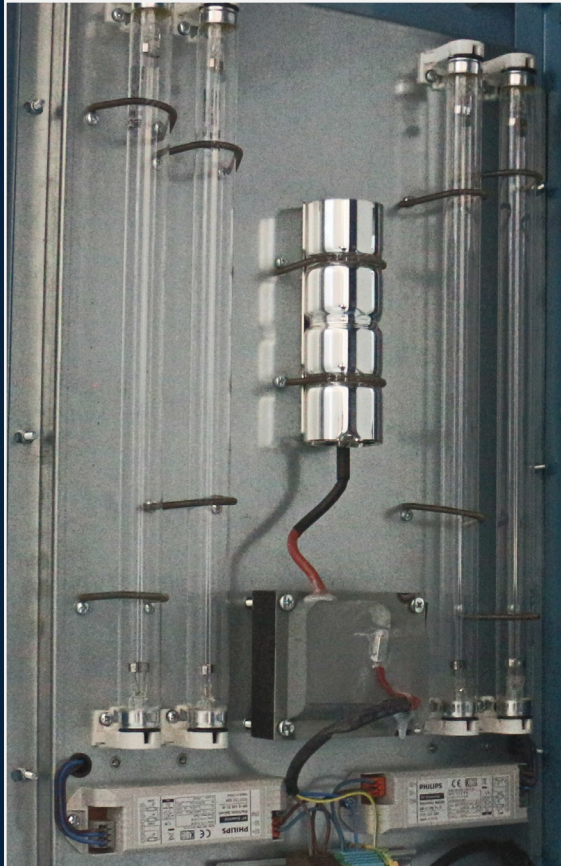

ELECTRICAL SUPPLY

TOUCH SCREEN

Values can be set and environment variables can be observed on the touch, color, graphic, **HMI** screen.

ATMOSPHERIC PLASMA & UV-C UNIT

Comprises a complete sterilization and negative ion generator, which can operate as a stand-alone system. System creates atmospheric plasma (pathogen ionizer).

The negative ion generator consists of Titanium dioxide (TiO2), Silver iodide (AgI), Copper Sulphate (CuS) coated borosilicate, cylindrical glass tube and HV unit.

Atmospheric Plasma Generator

With UVION Module technology, it is provided to disinfect the filtered air with negative ion and atmospheric plasma effect.

This mechanism, thanks to its catalytic inverter ethylene-based gas and the particles in the system-OH (hydroxyl attachments) breaks down to anaesthesia and other gases to decomposition, microorganisms DNA structure in violation of the deactivation, negative (-) Ions means of the suspended particles and to the right in the photocatalytic reaction by forming the airborne pathogens and gases ineffective.

Destroys all kinds of microorganisms, bacteria, viruses, pathogens.

There are UVC 254 nm germicidal lamps in the system.

CLEAN AIR INPUT

Fresh air is taken from the outside to the Saharan Aseptizer device, thus it is possible to obtain adjustable air in the range of 10%-100%.

If this feature is used, 20 Pa positive pressure is provided in the indoor environment where the device is used.
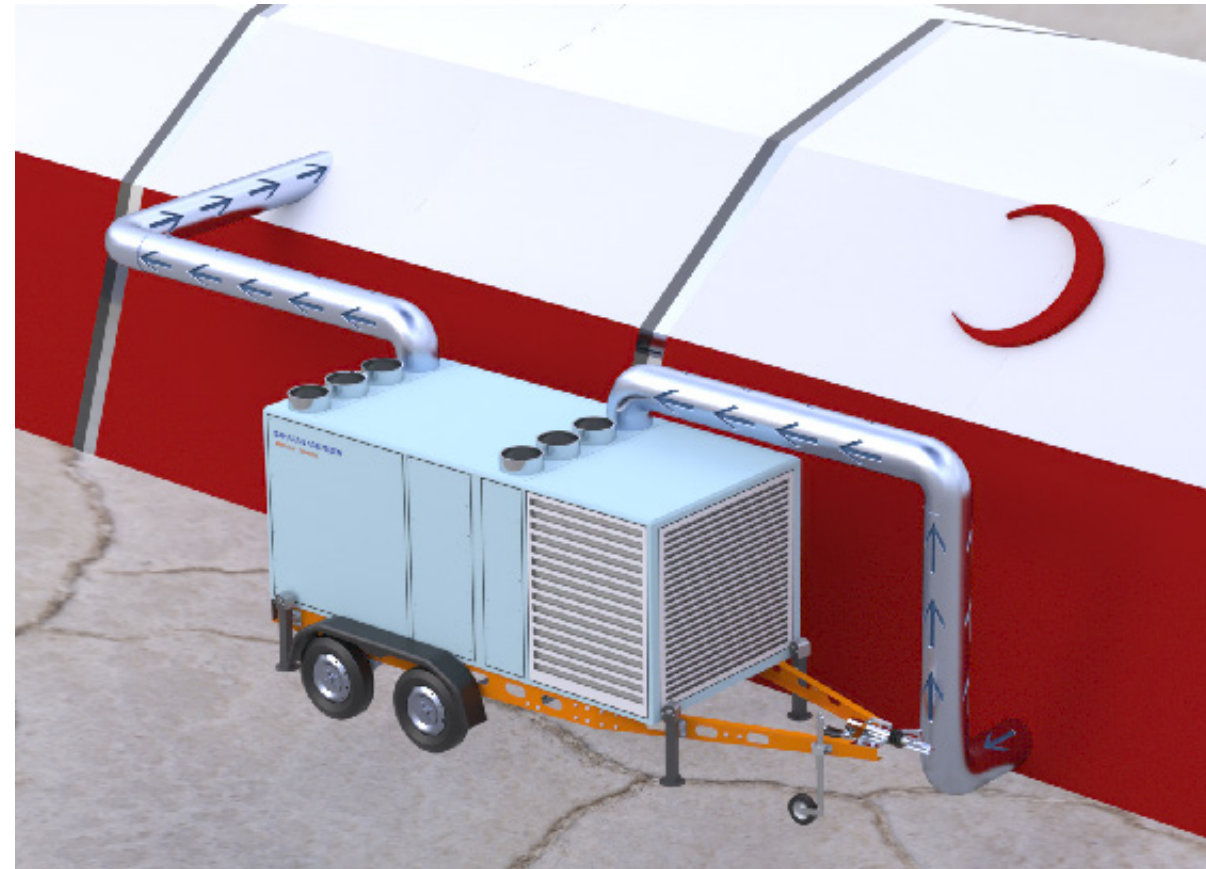
AIR CONDITIONING

INDOOR AIR CONDITIONING UNIT

SAHARAN ASEPTIZER EXTERNAL UNIT

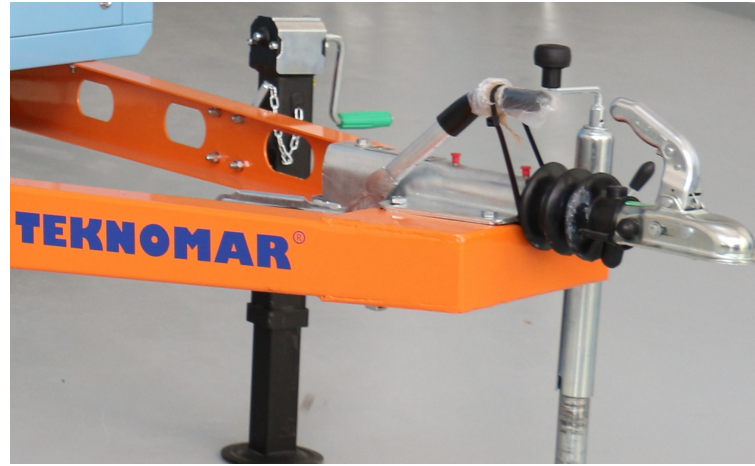SUCTION AND BLOWING HOSE DUCT CONNECTION

SAHARAN ASEPTIZER
EXTERNAL CHANNEL CONNECTIONS

HIGHWAYS TRANSPORTATION SECURITY

Wheels

Braking System and Arrow Machanism
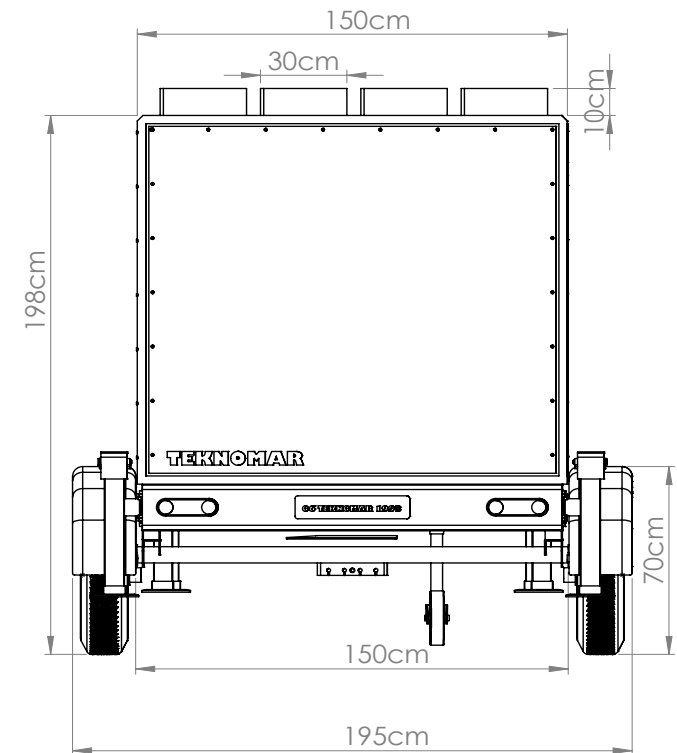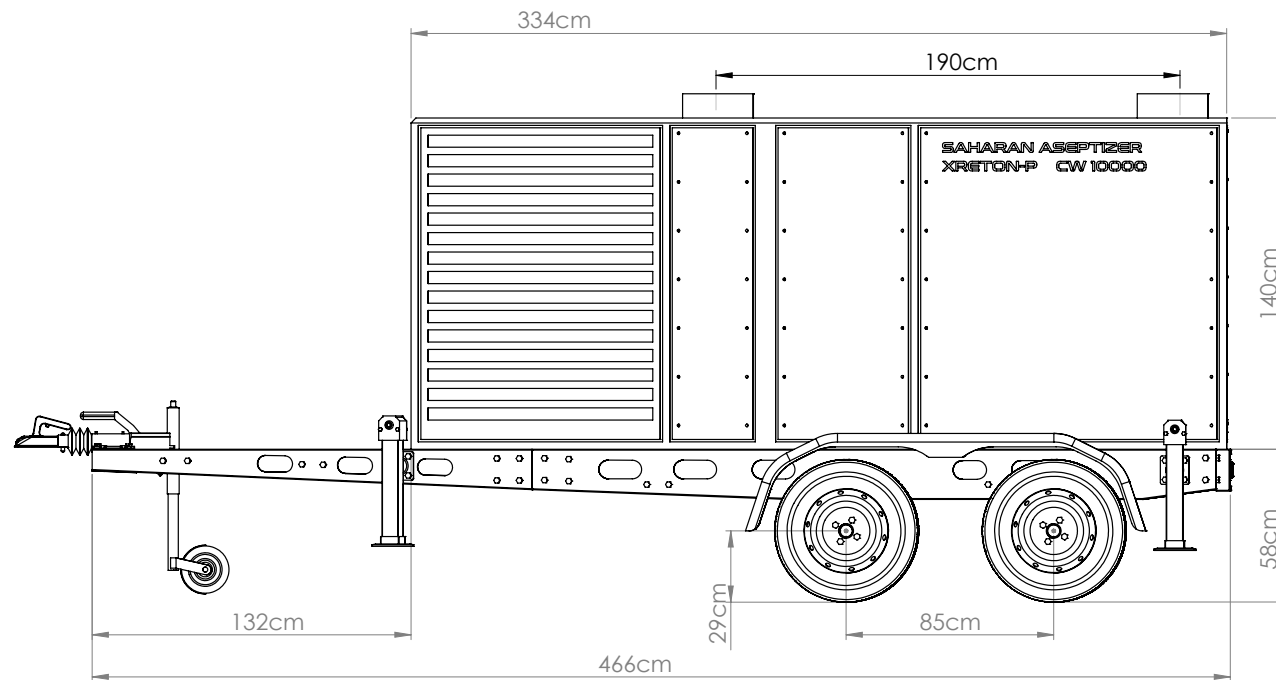
MODEL	CW5000	CW 10000
TYPE	Saharan Type Compact Mobile High-Level Industrial Hygienic Particle Reduction and Air Conditioning Device	
CLASS	MODULE A – Class I	

TECHNICAL SPECIFICATIONS & DATASHEET

TECHNICAL SPECIFICATIONS		
EXTERIOR DIMENSIONS (W-D-H) (cm)	334 x 150 x 140	
MOBILIZED COMPACT DIMENSIONS (W-D-H) (cm)	466 x 195 x 208	
DEVICE WEIGHT (kg)	1300	1520
OPERATING MODE	NEGATIVE / POSITIVE	
HEATING AND COOLING CAPACITY (Btu)	62000 / 56000	124000 / 112000
EXTERNAL HEATING CAPACITY (kW)	3,3	3,3
AIR CONDITIONING POWER CONSUMPTION (W) Cooling / Heating	5730/6590	11460/13180
FILTRATION POWER CONSUMPTION(W)	1100	2200
BLOWING INLET SIZE Ø mm / Piece	295 / 4	295 / 4
SUCTION INLET SIZE Ø mm / Piece	295 / 4	295 / 4
FRESH AIR INTRODUCTION CAPACITY (m³/h)	0 - 5000	0 - 10000
INTERNAL AIR CAPACITY	0 – 5000	0 - 10000
TOTAL AIR CHANGE CAPACITY(m³/h)	h 3 - 4 m X 140-150 m² area 15 Cycle	15 Cycle h 3 - 4 m X 280-300 m² area
EFFICACY AREA AT CLASS 10.000	h 3 - 4 m X 140-150 m² area	h 3 - 4 m X 280-300 m² area
EFFICACY AREA AT CLASS 100.000	h 3 - 4 m X 180-190 m² area	h 3 - 4 m X 330-350 m² area

PROGRAMS	3 Positive, 1 Negative, 1 Auto Total 5 Programs
PARTICULER DECONTAMINATION	95% - 96% particulate decontamination for particles as large as 0.3 - 0.5 µm within the first 1 hour
BIO DECONTAMINATION	96% ≤ bio-decontamination within the first 1 hour
BIO DECONTAMINATION EFFICACY	Unfilterable Resistant Long Ethylene Agents, All Kinds of Microorganisms, Viruses, Influenza, RSV Pathogens, Mold, Fungus, Covid, etc.
HEPA RETENTION RATE	Filtration Efficacy at 0.3 – 0.5 Micrometer Particle Size
HEPA PERFORMANCE	99,999%
H14 HEPA MAIN FILTER SIZE (mm)	610 x 1220 x 220 / 250 Pa
F7 RIGIT FILTER SIZE (mm)	490 x 592 x 149 / 170 Pa
CARBON FIBER PRE FILTER SIZE (mm)	Carbon / Fiber / 50 Pa
AMBIENT AIR - CONDITIONING	16-30 ^{0}C
DEVICE CHASSIS	Electrostatic Powder Coated Steel
SOUND VOLUME (1 m)	55 dB
AIR BLOWING METHOD	With Flexible Pipe
AIR SUCTION METHOD	With Flexible Pipe
ELECTRICAL INFORMATION	380-400 V AC 50-60 Hz
PROTECTION CLASS	IP20 / EN 60601-1-2:2016
SCREEN	4.3" LCD Touch Screen
CONTROL SYSTEM	The Unit Controls Continuously The Environment Temperature, Pressure, Air Humidity, Filtration Clogging and Air Speed With 1% Precision.

SOFTWARE	PLC / HMI
MENU LANGUAGE	TR / ENG
ALARM WARNING	Error Conditions, With Alarm Codes Audible and Visual Warning
PASSWORD PROTECTION	User and Technical Service Password
AIR SPEED SENSOR	1% m/s Sensitivity, 4-20 mA
MARGIN PRESSURE SENSOR	40-450 Pa
HEAT & HUMIDITY SENSOR	1% 0C, 1% Rh Sensitivity, 4-20 mA Rod Type
AIR CONDITIONING INTERNAL UNIT	High-Performance A1 Class Inverter Heating Cooling Unit
ENERGY LABEL COOLING/ HEATING	A++ / A+++ 60% ≤ Energy-saving
AIR CONDITIONING EXTERNAL UNIT	Air Conditioning External Unit Operating Temperature -10 +44 ^{0}C
MOISTENING	External Ultrasonic Nebulizer (Optional)
FRESH AIR SUCTION FILTER	EU7 FILTER
AMBIENT AIR SUCTION FILTER	G4 CARBON FILTER
UVION MODULE	Atmospheric Plasma / Negative Ion Generator
ION GENERATOR	TiO2, AgI, CuS coated cylindrical borosilicate glass tube ion generator
ATMOSPHERIC PLASMA	HV (5000 V plasma) supply
UV LAMP	8 units 15W UVC 254 nm germicidal lamp
SPEED COMPENSATION SYSTEM	Automatic Air Speed Flow Adjusted According to Filter Clogging
SEALING	Provides filter safety with a leak-proof HEPA Plenium Box suitable with DOP test.
PLENIUM BOX FILTER RESISTANCE	425 Pa

OTHER AND OPTIONAL SPECIFICATIONS	
INSTALLATION and CABLE	All installation and cables used in the device are Halogen Free. (Non- inflammable).
CAPACITY	Air, Heating Capacity can be increased by 40%.
HEATING GROUP	Heater and Dehumidifier Thermostat Stepped Resistance Group can be increased up to 10 KiloWatts.
FANS (Internal and External)	Static/Dynamic, Stainless, Frequency Controlled and Mode Calibrated Radial, EC, Plug, etc. FANS (650 Pa) can be connected coupled.
SEALING	Leak-proof gasket and lock on the device covers.
ISOLATION	Acoustic and heat insulation 20-25 mm fireproof polyurethane material (plate and pyramid). (20-45 kg / m3)
COMMUNICATION	RS 232, I /O
OPTIONAL COMMUNICATION	Ethernet, Wi-Fi, Rf-ID
ELECTRIC	According to the countries, 220/240 V 50-60 Hz, 110 / 120 V 50-60 Hz, Three phase 380 / 400 / 440 V 50-60 Hz (against +-10% fluctuations)
SENSORS	Air flow speed, pressure sensor, temperature control, humidity sensor, thermostat, frequency control, phase control, static occupancy, defrost sensors.

DOCUMENTS	
ISO 9001	Yes
ISO 13485	Yes
EC CERTIFICATE	Yes
DOMESTIC GOODS CERTIFICATE	Yes
CERTIFICATE of FREE SALE (CFS)	Yes
USABILITY TEST APPROVAL	Yes
TSE (TURKISH STANDARDS INSTITUTION) SERVICE CERTIFICATE	TS 12850 and TS 12426 Service Adequacy Certificate

MAINTENANCE PERIOD AND KIT			
	MAINTENANCE PERIOD	CW 5000	CW 10000
H14 – HEPA PRE - FILTER	1 time in 6 months	1 Piece	2 Piece
F7 RIGIT FILTER	2 times in 6 months	2 Piece	4 Piece
CARBON FIBER PRE FILTER	2 times in 6 months	1 Set	2 Set
UV LAMP	1 time in 6 months	8 Units	8 Units
UVION PATHOGEN IONIZER UNIT	2 times in 1 year	2 Set	2 Set
SOFTWARE VALIDATION	1 time in 1 year	Once	Once

CONTACT US

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