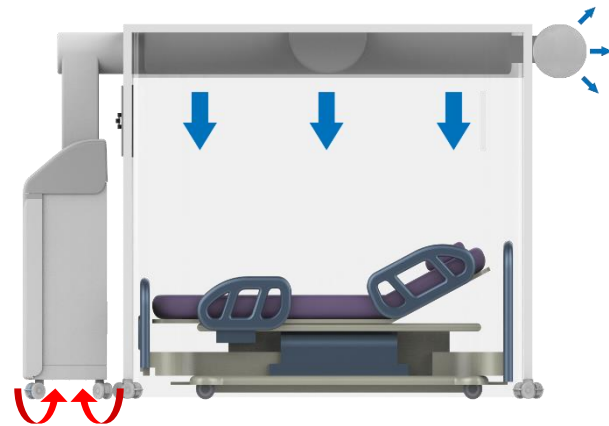


General Presentation

ISOLAIR® is a mobile protective room for immuno-compromised patients, thanks to its positive pressure.

The installation takes only 2 to 3 hours, providing a quick and flexible use on site, and easy access for the medical staff.

It is easy cleanable thanks to its PVC panels in crystal 30/100 and offers a large protected area to the patient and reduce the anxiety related to confinement.



Features

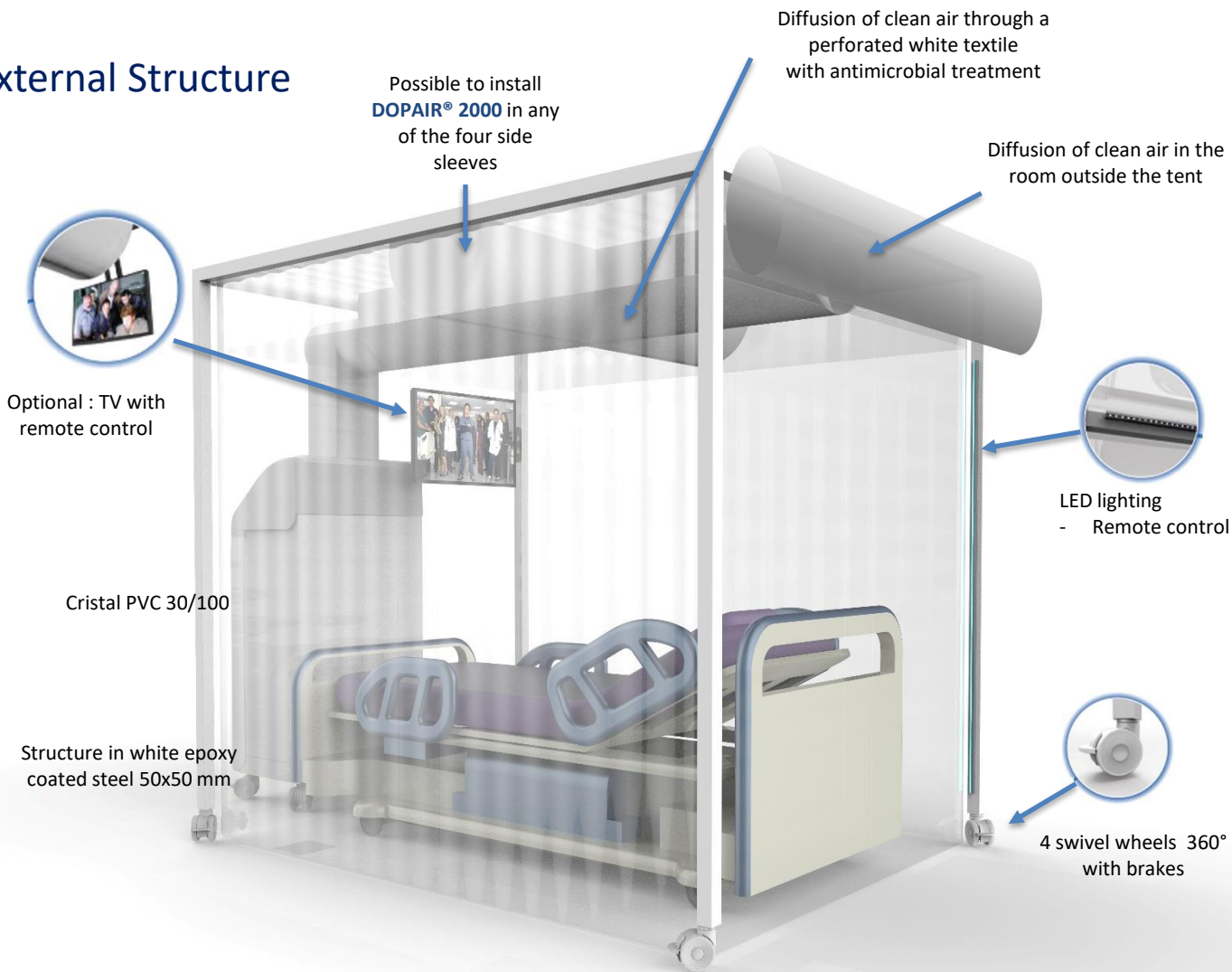
- ISO 5 performance inside the protected area
- ISO 7 performance outside the tent
- Microbiological reduction: up to 99.99% in a single pass
- Blowing ceiling solution
- LED TV up to 28" with remote control (OPTIONAL)
- Transparent curtains
- Easy to install, easy to access
- Hygienic wheels
- Double LED lighting with remote control
- LED ribbon power

- Device capable of running 24/ 7
- Installed in 3 hours by 2 persons.
- Plug & Play System

Burn wards,
Hemato-Immunology,
Portable OT Rooms

Technical data sheet

External Structure



Air diffusion specifications



- Air diffusion via micro perforated textile duct
- Connection, diffusion and ceiling in white 160gr/m² polyester canvas with antibacterial treatment
- Air flow rate from 500 to 1100 m³/h (recommended value)
- Air change rate inside ISOLAIR® : 50 - 110 vol/h (without the side sleeve)
- DOPAIR 2000 connection can be done via textile duct on either 4 sides.

Working principle of DOPAIR® 2000

- 1) **PRE-FILTRATION ACTION:** a filter G4 retains synthetic dust with an efficiency of >90% according to EN779:2012.
- 2) **FILTRATION ACTION:** a filter F7 retains the particles up to 0.4µm with an efficiency of >80% according to EN779:2012. It acts as a barrier for large particles.
- 3) **High filtration action:** a HEPA filter H14 retains the particles up to 0.3µm with an efficiency of >99.995% according to EN1822. It retains the finest particles.

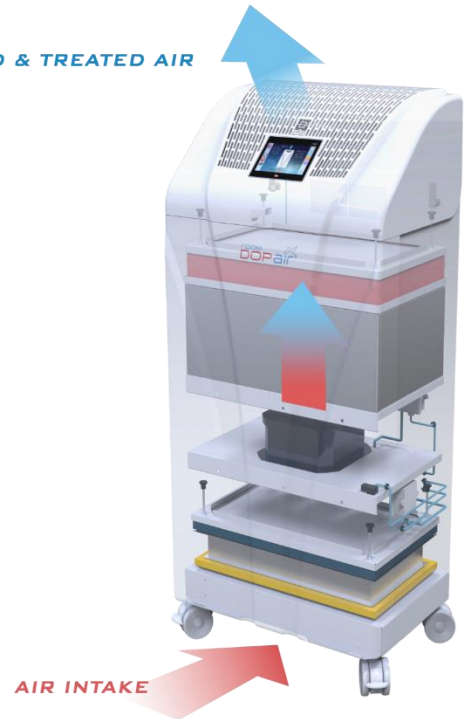


It is possible to add a Bioxygen module inside the tent (**OPTIONAL**)

Bioxygen® system is made of a set of condensers producing an electric field which modifies the charge of oxygen atoms in the air.

The release of negative ions, creating an ionization phenomenon that has a bacteriostatic effect on the living particles. The production of a limited quantity of ozone that enable a significant reduction of bacteria, fungus, virus.

SUPPLIED & TREATED AIR



Control Panel – Integrated Screen



DOPAIR® 2000 includes a touchscreen 7". It gives access to information and different setting parameters, with password restrained logins



- Full traceability on maintenance operations
- Alarms for clogged filter, fan, malfunctions,
- Set air flow speeds according to the time of the day.
- Menus with secured access code

ISO Standards NF EN ISO 14644-1 & NFS 90 351 (v. April 2013)

What do European standards say?

ISO Standards classify Cleanrooms into different classes : For each risk zone, ISO standards specify technical performances to be achieved :

- **Decontamination kinetics class:** Particle decontamination kinetics on particle size 0,5 micron/m³ is the necessary time to reduce 90% of the initial decontamination highest level. For example, **CP10** means that it takes 10 minutes to reach 90% decontamination rate.
- **Bacteriological class:** it indicates the maximum concentration of number of viable particles per cubic meter of air (CFU/m³). For example, **M10** means that this level accepts a maximum concentration of 10 viable particles per cubic meter of air (CFU/m³) .

TARGETS							Means	
No human presence but furniture				During activity				
Risk Area	Particle classification	Particle decontamination Kinetics (0,5µm)	Bacteriological classification	Temperature	Hygrometry	Sound pressure	Type of air flow	Air change rate (ACH)
AREA 4	ISO 5 Class 100	CP5	M1	19°C to 26°C	45% 65%	48 dBA	Unidirectional flow	LAF with Air speed : 0,25 to 0,35 m/s ≥ 6 ACH of Fresh air
AREA 3	ISO 7 Class 10 000	CP10	M10	19°C to 26°C	45% 65%	45 dBA	Unidirectional flow or not	15 ACH Including 6 ACH of fresh air
AREA 2	ISO 8 Class 100 000	CP20	M100	19°C to 26°C	45% 65%	40 dBA	Non unidirectional flow	10 ACH Including 6 ACH of fresh air
AREA 1	Non-specific areas					35 dBA		

For instance :

ISO	NFS 90351	RISK LEVEL	EXAMPLES
ISO 5	ZONE 4	Very high infectious risk	Prosthaetic orthopedic surgery
ISO 7	ZONE 3	High infectious risk	Digestive surgery
ISO 8	ZONE 2	Moderate infectious risk	Infectious patient room

Technical data sheet

LAB REPORTS

The combination of mobile protection + DOPAIR® 2000 fully complies with **ISO 5** and positive pressure inside the protected area and creates **ISO 7** environment in the containing room

DOPAIR® 2000

ATA Medical has approached an independent laboratory, VirNext, to test the efficiency of DOPAIR® 2000 system on the following micro-organisms: Virus, Bacteria (Gram -), Bacteria (Gram +), Spores, Molds. The test results show that DOPAIR® 2000 allows the decontamination of a confined space with an efficiency of:

INFLUENZA H1N1	99.993%
ADENOVIRUS 5	99.905%
BACILLUS SUBTILIS	95.234%
PSEUDOMONAS AERUGINOSA	99.965%
ESCHERICHIA COLI	99.925%
STAPHYLOCOCCUS AUREUS	99.842%
ENTEROCOCCUS FAECIUM	99.800%
CANDIDA ALBICANS	99.973%
ASPERGILLUS FUMIGATUS	99.467%

BIOXIGEN®

Bioxigen system has been tested by the independent laboratory LabAnalysis Srl of Pavia, which defined Bioxigen: "effective against all enveloped viruses (including coronaviruses such as SARS-Cov-2)." The tests confirm the validity of our sanitization method, demonstrating that the devices have an effective virucidal activity also against COVID-19, with a 4-log reduction of the viral load.

Incubation Time point (min)	Reduction with 95% confidence interval	Assay Outcome
15	0,50 ± 0,65	Not pass
30	1,67 ± ,0,56	Not pass
45	3,00 ± 0,59	Not pass
60	4,00 ± 0,00	PASS

ISOLAIR® system

The complete ISOLAIR system has been tested by the independent laboratory AéroliA, and proven compliant to ISO 5 standard. It creates a hyperaseptic environment to effectively protect immunodeficient patients.

<input checked="" type="checkbox"/> at rest	<input type="checkbox"/> in activity
Particle sizes	≥0,5µm
Limit of ISO 5 class	3 520
Maximum particle concentration/m ³	200
Particle class	ISO 5

SOUND LEVEL			
at 2 m			
m3/h	500	1000	1400
dB(A)	32	45	54

Technical data sheet

	ISOLAIR with DOPAIR® 2000
Recommended air flow with DOPAIR® 2000	500-1100 m ³ /h
Air supply	Air diffusion via micro perforated textile duct
Air change rate inside ISOLAIR®	50 to 110 vol/h
Control Panel	Multi-function touch screen
Fan mode	Auto / Manual / Day – Night
External Dimensions	2450 x 1900 x 2250 mm
External Dimensions with external lateral duct	2450 x 2500 x 2250 mm
External Dimensions with external front duct and DOPAIR 2000	3050 x 1900 x 2250mm
Internal Dimensions	2235 x 1800 x 2150 mm
Internal volume	Approx 10m ³
Pre-requierment for external room volume	80m ³ to obtain ISO7
Weight of the tent	65 kg
Intake filters	G4 + F7
Output/ supply filter	H14
Decontamination system (optional)	BIOXIGEN® reactor
Pressure probe	At G4/F7 filters + H14 filter + at the fan.
Internal structure	DOPAIR 2000 junction: Plenum is adapted with a white polyester textile duct Ø 250mm with antibacterial treatment
External structure	Galvanized steel structure 50x50mm epoxy paint DOPAIR 2000 : Thermoformed panels
Electrical power	230V 50 Hz
Electrical base plug	Type E, 2 pins, grounded, 220 – 240 V
Mobility	4 swivel wheels Ø 100mm with brakes
Language	French / English / Spanish

Technical data sheet

MAINTENANCE

FILTERS:

Pre-filter G4: to be replaced every 3 months. This filter is cleanable 5 times.

Filter F7: to be replaced every 6 months. This filter can be cleaned with compressed air once, and replaced after 12 months. Therefore, F7 filter can last 1 year.

Air supply Filter H14: to be replaced every 12 months.

These frequencies are indicative only. They may differ according to the usage and the site conditions.

BIOXIGEN®

Replace quartz condensers every 12 to 24 months according to the use.

Lifetime guaranteed of 1 condenser: 14000 hours of use in normal using conditions. 3 condensers can be placed simultaneously. In order to maintain its efficiency, the Bioxigen® condenser has to be cleaned and replaced regularly.

WHITE CANVAS DUCT :

The polyester white canvas is made of textile with **flame retardance** and **antimicrobial** properties which prevent bacteria multiplying in or on the fiber. The fabrics are made of silver-containing, antimicrobial fibers with flame retardancy firmly anchored in the fiber polymer. After 50 wash cycles, the bioactive textile is 99,8% effective.

To clean the polyester fabric, please follow these steps:

- Prewash at 40°C (for 8-12 minutes)
- Wash at 45°C (for 15 minutes)
- Rinse 2 times: cool down slowly until 30°C then rinse with cold water
- Pendular drying in a ventilated place

TRANSPARENT CURTAINS :

To clean the curtains, please do not use a washing machine, but use rather : Hospital cloth and Anios-type disinfectant.

- The antibacterial coating is not included in the transparent curtains.

Cleaning frequency : Once before first use and every 4 to 6 months. Always before installing another patient



NOTE:

The exterior duct (see photo) are textile diffusers that supply clean air to the outer side of the tent.

The environment inside ISOLAIR reaches microbiological level ISO 5 (NF EN ISO 14644-1 or class 100 in US Federal Standard 209). But it can also create ISO 7 safe environment outside the tent (in the room receiving the tent).

2) The curtains may touch the floor. You can adjust the screwing of the wheels to rise the structure of a few millimeters.

All edges are cleanable.

For more information, please visit our website:

www.ata-medical.com,

or contact us: contact@ata-medical.com