

PRESENTATION OF THE ERGO-AIR



1. INTRODUCTION

The Ergo-Air is the first medical respiratory protection device that protects both the user and the patient, or in general anyone in the vicinity, from contamination. This patented bi-directionality is particularly effective in all cases of respiratory pathology treatment and significantly reduces contamination in operating rooms and clean rooms. The Ergo-Air also protects against radioactive dust contamination. In addition, the Ergo-Air is very easy to handle and comfortable to use.

The Ergo-Air is developed and produced according to EN 13485. It is fully sterilisable.



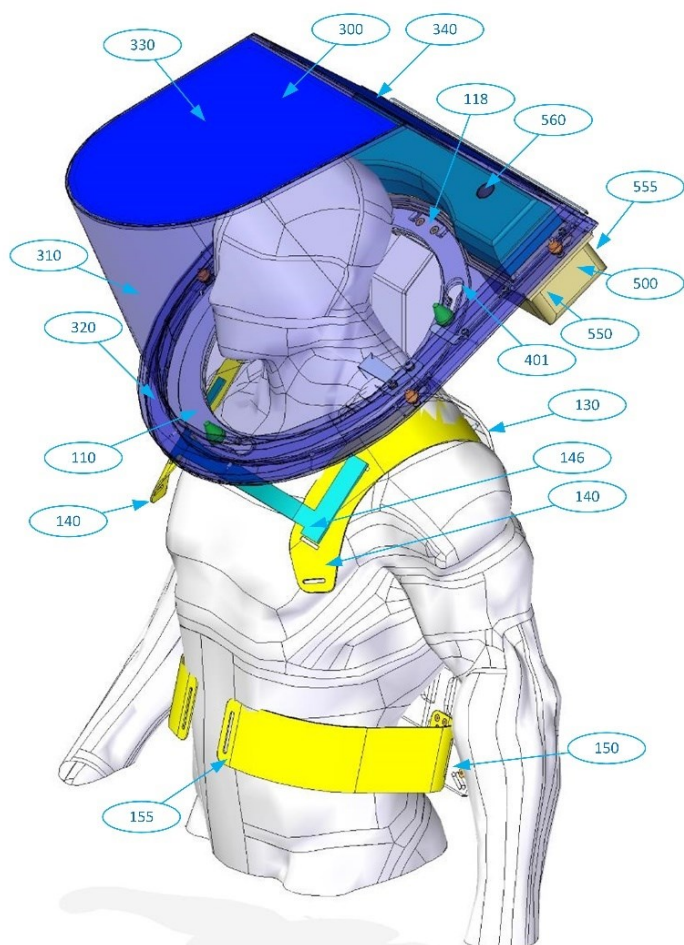
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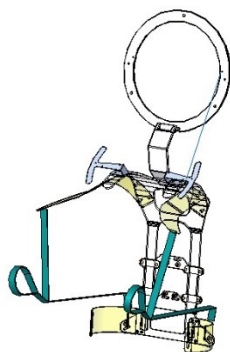
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The Ergo-Air is also designed as a package:

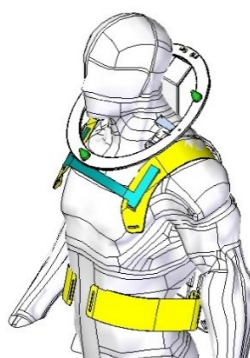
- Equipment: hood, textile collar, back fastener
- Accessories: intelligent validation base, non-contact battery charging system that allows charging of batteries of already sterilized equipment
- Storage racks, wall mounting for dressing support
- Ozone sterilization chamber
- Environmentally friendly flow management
- Integration of this new technology in a hospital or clean room environment
- Training of users and maintenance staff



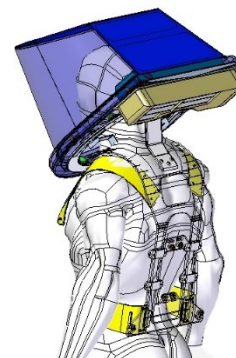
110	Support ring of the hood
130	Hard back
140	Elastic shoulder straps
146	Sternum strap in the down position
150	Sliding waist belt holder on the hard back
155	Elastic abdominal belt
300	Hood
310	Transparent visor
320	Air transfer channel to the front of the hood
330	Textile upper side of the hood
340	Textile back side of the hood
401	Grooves for the 3 bayonet pins
500	Battery box
550	Photocell controlling the cooling air flow rate
555	Photocell controlling the sound level of the voice alarm messages
560	Air flowmeter inlet



Back fastener before threading



Tight back fastener



Back view

2. HIGHLIGHTS

Safety

- The Ergo-Air is the only equipment that protects its user even when it breaks down because the user has more than 15 minutes to get out of the area and put on another Ergo-Air
- The Ergo-Air filters are HEPA cleanroom filters (EN 1822:2009), type H13 (99.95%) which reduce the residual risk to 0.05% for particles of 0.1 μ . Viruses need aerosol droplets as vehicles to move: aerosols above 0.1 μ will be mechanically stopped by the filter, and aerosols below 0.1 μ will be captured by the free ionic bonds of the filter fibres
- The back fastening ensures a firm hold on the body without any play, while allowing total freedom of movement (caregiver height: 1,6m to 2m).

Sterility

- All equipment is sterile and delivered in sterile packaging. Afterwards, it can be either decontaminated with an alcohol or Actril wipe or ozone re-sterilised before each use
- Decontamination is easy, fast and efficient thanks to the Ergo-Air's fluid design (all smooth and rigid surfaces, no inaccessible corners).

User comfort

- Thanks to very large filter surfaces (20 times the surface area of an FFP2 mask), the compressor uses very little energy for the air flow required in the hood, which reduces the noise level of the compressor to an almost inaudible level
- By measuring the intensity of the user's breathing, the Ergo-Air automatically adapts the airflow to the physical effort being made
- The airflow can be increased to cool the hood on demand
- No need to wear a face mask, no contact with the head or face, and no more fogging of glasses
- One model fits all sizes from 1.6m to 2.0m.

Patient comfort

- Visual contact with the entire face of the caregiver: this vision is beneficial for all, indispensable for the hearing impaired, and impossible with FFP2 masks
- Easy oral communication between caregiver and patient thanks to specific textiles located under the hood and on the top and back of the hood

Additional services

The Ergo-Air is supplied with accessories for validation, non-contact battery charging during equipment sterilisation, traceability software, and optional ozone sterilisation and centralized informatic collection of alarms.

Respect for the environment

As the Ergo-Air is reusable, it does not generate waste per se and saves 800 FFP2 masks over the lifetime of an Ergo-Air.

The entire production of the Ergo-Air is carried out in Belgium and therefore has a minimal carbon footprint, and its assembly is entrusted to an Adapted Work Enterprise.

3. A COMPENDIUM OF TECHNOLOGY

- Control of ventilation by a microprocessor according to the physical effort made by the user
- Measurement of the cleanliness of the filters
- Bluetooth communication
- Voice alarm signals
- Design that guarantees sterility during all handling

- Thermoforming
- Ultrasonic welding of textile to plastic
- UVC curing adhesives
- Double RFID labelling for total traceability.

4. DOCUMENTATION AVAILABLE IN ENGLISH / FRENCH / DUTCH

The following documents are available on request via the website www.medicalBubble.eu. Some videos are also presented.

- Specifications of the Ergo-Air and its accessories
- Instructions for use of the Ergo-Air in sterile areas
- Safety Analysis
- Real-time measurement of Ergo-Air parameters (PC software)
- Ergo-Air failure, consequences.
- Ergo-Air Questions and Answers (53 questions)

6. OUR CONTACT DETAILS

Thank you for contacting us:

firstly, for a demonstration, and then, for the provision of several pieces of equipment for your team, for a whole day and more if you wish...

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The prototype in operation room



Confort and security without wearing a face mask (picture from the video presentation)

