

PORTABLE ISOLATION CHAMBER

AIR AMBULANCE SERVICES

1. Context

FM-SARPA is committed to the responsible and safe transport of COVID19 patients. For this reason, a portable isolation chamber is proposed, to comply with international aviation and WHO guidelines for a safe transport of contagious or high-risk patients, and protection of aeromedical and aeronautical crew.



The three Portable Isolation Unit is to be used on the jointly operated air ambulance services by FM-SARPA either Learjet 35/45 and or/- Jetstream 32 type plane rating stationed on Bonaire DC. In paragraph 2 the technical specifications are mentioned in more detail.

2. Technical Specifications

The following paragraphs provide a technical description of the portable isolation chamber.

Portable Isolation Chamber (PIC) is a mobile containment unit used to transport highly contagious or high-risk patients. The unit is completely airtight and is equipped with a HEPA filtered ventilation system. It is capable of either depressurisation to ensure the isolation of highly contagious patients. Or over-pressurisation to protect transported patients from external contamination (transfer of immunocompromised patients or the evacuation and care of casualties in CBRN environments).

- Internal dimensions : 210 x 55 x 50 cm (L X W X H) (Adult)
 - TRANSPORTATION BACKPACK : 55 x 55 x 35 cm (L X W X H)
 - Weight : 17 KG fully equipped.
- 8 ergonomic carrying handles.
 - 4 pairs of cuffs (30cm long) made of transparent polyurethane 30-100.
 - 4 pairs of Butyl or PVC gloves for medical intervention on the patient from the outside. Vacuum mattress with suction valve and fastening system.
 - 4 arches.
 - 2 wide ports with openings and waterproof zips for the introduction of medicines and the passage of cloths, compresses and any other equipment.
 - An airtight valve port for the passage of the transfusion tubes.
 - An airtight valve port for the passage of the suction tubes for liquids.
 - 3 internal, coated straps with quick-tightening buckles to fasten the patient securely during transport.
- Unit in transparent polyurethane (75-100 mm) and 840 D coated fabric with double-sided, gray polyurethane on both ends and arches.
 - Ground sheet and double bottom base in 840 D coated fabric with double-sided, black polyurethane, extremely resistant.
 - 2 compact and light ventilator/filtration units with a HEPA filter, one is a spare as a precautionary measure.
 - With the battery fully charged, the system can operate for up to 16 hours without an external power source. It is equipped with an alarm system which rings when the battery is weak.
 - Internal balloon to control decreases in pressure.
 - Waterproof and airtight zip on 3 sides of the unit for rapid and easy installation of the patient.
 - CE marking, SECURITEC logo, Identification number.
 - 4 foldable longitudinal rods to strengthen the unit.
 - Sleeve to insert fibreglass rod.
 - Integrated pairs of gloves on ports with 2 O-rings.

Inflatable transfer mattress in the double bottom base which can be removed. It is like a long spine board when inflated and is sturdy enough to be used without a stretcher underneath. It allows the patient to be left in the unit for several hours without the need for additional support. The pump is provided with the PIC.

- External handle for attaching the ventilator/respiration unit.
- 2 one-way valves for the entry or expulsion of air at the top; decrease in pressure of 5 Mbars (500 Pa).
- 3 external straps for fastening the unit to a stretcher.
- Internal rim on the ground sheet to retain fluids when opening the unit.
- Detachable pouch for personal effects.

3. Supplier of Portable Isolation Chamber

Securotec

21 rue de Paris 69170 Tarare
 France
 T: +33 (0)9 67 77 09 39
 F: +33(0)9 70 63 40 29
 M: [REDACTED]
 5.1.2e @securotec.fr

URL link of the product

<http://www.securotec.fr/en/products/pic-portable-isolation-chamber> ~~trashed/~~

4. Authors of this document

- Adriana Escobar, Health services director SARPA
- Felix Greving, Base coordinator air ambulance – crisis coordinator Fundashon Mariadal Bonaire