



Portable Emergency Patient Isolation Room & Chamber (Enclosure Bag)

- For the future of Medical Care

The numbers of lethally infectious diseases are increasing over time, especially in Asia, Furthermore Morbidity and Mortality due to Mycobacterium Tuberculosis (TB) and SARS or Avian Flu have been an important issue for hospital infection control in recent years. A well-organized protection plan for the ambient environment in the hospitals or health facilities and to the Health Care Workers (HCWs) should be deserved, recommended by the US CDC Guidelines.

****CDC Guidelines for Environmental Infection Control in Health Care Facilities recommends special rooms for this patient population,** Infectious disease precautions in the ambulatory-care setting should include

A **Portable Emergency Patient Isolation Chamber (Enclosure Bag)** to offer more protection for all HCWs involved in transporting patients ever since at the first point of contact in ambulance

A **Portable Emergency Patient Isolation Room** will be the best choice to comply with these needs in a fast and cost efficient manner by placing these patients in a separate area apart from other patients, and not in open waiting areas.

However, the Health Care Facilities still:

1. Neglect contingent infection during the ambulatory stage of the first contact
1. Do not have enough room to quarantine or isolate the infectious patients.
- 2 Are reluctant to invest the time and capital to create a permanent building modification, mostly due to budget constrain, prior to a pandemic or major emergency event.
3. Are not retrofitting standard patient rooms to become isolation rooms or dual purpose rooms.
- 4.The modified permanent iso-room becomes idle after pandemic disease crisis.

In view of the urgent needs as above for the HCWs and cost-effectiveness for the Health CareFacilities, the Iso-Safe MP(Isolation Room) and Iso-Safe SP were designated and

Portable Emergency Patient Isolation Room model Iso-Safe MP

The Iso-Safe MP portable isolation room is designed as a **reusable air beam structure** with replaceable Ice-Cube (tm) interior liner envelope. Iso-Safe MP is a fully CDC compliant isolation room with ante-room and main-room construction. The ante room is designed to create a secondary containment space to eliminate cross contamination, and for pre disposal decontamination of the Iso-Safe SP unit. The main room is used to house up to two infectious patients simultaneously.

Iso-Safe MP's inflatable airframe is made of durable neoprene for toughness and puncture resistance. Dual inflation ports allow for convenient inflation at either end of the unit, and dual heavy-duty pressure relief valves protect the airframe from over inflation.

The suspended clear disposable vinyl ice cube(**ICE-MP**) is a replacement component and provides for maximum visibility for exterior patient monitoring, light transmission and patient comfort (non-claustrophobic).

The access door is opposite to the ventilation port to insure proper directional airflow. Convenient control orifice opening with Velcro closure facilitates air control and maintains negative pressure stability. Dual sleeved ventilation ports conveniently couple Iso-Safe MP to dual Puriclear HEPA filtration units which filter the air in the MP unit for safe discharge to outside.

Iso-Safe MP units come standard with a Force 5 120 volt powered rapid inflation blower which can completely inflate the structure in under 3 minutes.

Iso-Safe MP units are stored on the transport cart for convenient storage.

Technical data of Model MP:

1. Size: 387cm x 368cm x 223cm
2. Materials and components :
 - i. Air frame made of Neoprene
 - ii. Full wrap translucent disposable vinyl liner envelope.
 - iii. Dual 120 volt Puriclear HEPA filtration units.



- iv. Force 5 120 volt electric rapid inflation pump
- v. Ultra precision TSI pressure monitor with data logging capabilities.
- vi. An aluminum alloy transport cart for entire system.
- vii. Weight:



Our unique system:

- 1) It is extremely portable in urgent situation.
- 2) It has flexibility to be installed in any place such as the hallway or corridor of any health care facility.
- 3) **The MP system allows no more than two persons to move the airborne isolate room and erect it in minutes to response in a very rapid manner to any emergency problems**
- 4) **Is conveniently stored on the compact transport cart for rapid response in case of an incident and includes:**



- 1. Two **Puriclear** HEPA filtration units located on bottom tray.
- 2. One **Force 5** rapid inflation blower located on bottom tray.

3. A convenient plastic case on the upper deck
4. One complete **Iso-Safe MP** inflatable isolation room unit.
5. Two **Iso-Safe SP** portable patient isolation bags.

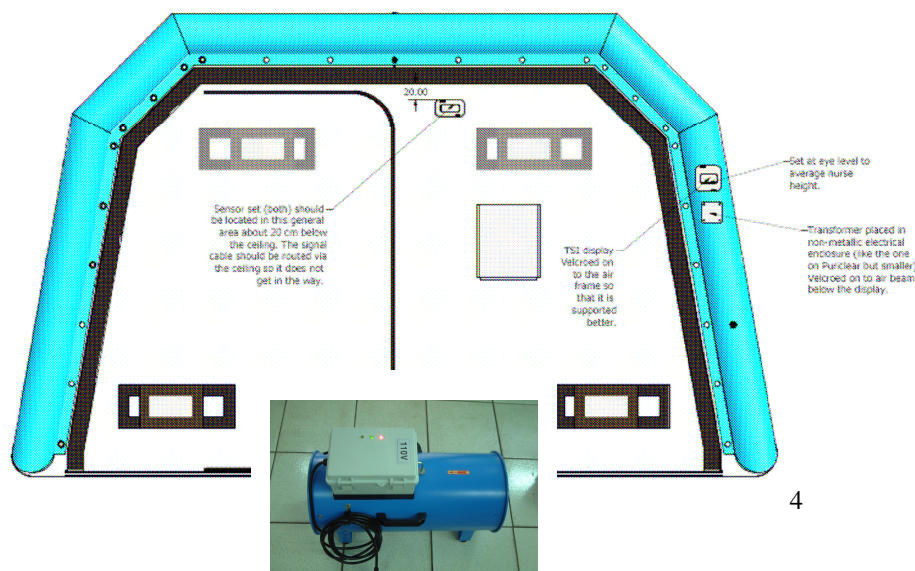
To set up Iso-Safe MP:

To comply with the US CDC guidelines, the ventilation system of Iso-Safe MP is specially taken care. To prevent air stagnation or short-circuiting of air from the supply to the exhaust, the air supply has two different level of flow windows to get rid of any air stagnation. And exhaust is located as close as to the patients exhalation. In this way, the HCWs is not positioned between infectious source and into the exhaust location

1. Open the plastic case and dismount the isolation room from transport cart.
2. Connect the blower hose to the inflation valve of the MP unit.
3. Inflate the air frame till it is firm to the touch (approx 3 min).
4. Unpack the Ice Cube liner and hang the liner on the air frame by way of the hooks.
5. Connect the sleeves to the Puriclear HEPA filter units and make sure there is no air leakage.
6. Set the TSI pressure monitor on the air frame column on the right of the entry door. And
7. Mount the pressure monitor sensor on the door panel. The locations are marked in the drawing and connect wiring to monitor unit.
8. Turn on the Puriclear HEPA filtration units on so as to initiate the negative pressure in the unit.
9. Check the pressure monitor and make sure the patient room is always negative in pressure.

LMB System Puriclear Filtration System:

1) A Twin filtration system is designed to safeguard the continuing negative airflow for the patient inside the Iso-Safe MP and the HCWs in the time to replace the filter without interruption of the air and safeguard against any malfunction of any unit of





Puriclear

- 2) With a proper air balance pressure system that can transform a space to an airborne Isolation area in minutes by creating a cubic air-lock which prevent the infectious diseases leak out from the Iso-Safe MP. The HEPA filter can purify the air from inside the room (99.97%) and release clear air to outside (hospital corridor is 80% efficiency) to protect for the other HCWs

Ice Cube liner and disposal:

Whereas the Neoprene frame of the Iso-Safe MP air Frame is 600 degree C fire resistant physically, the canopy of ICE can hold the temperature up to 120-130 degree C, while the ordinary PVC is only at 70-80 degree C hold up. The Iso-Safe MP and its canopy is regarded as fire-resistant by the California State Fire Marshall, which allows patient or HCWs stay inside the rooms to escape from fire with extra time.

1. Remove pressure sensor units.
2. Dismount the liner while keeping the filters on. When there is not air inside the liner.
3. Turn off the HEPA filter. And dispose of the filters. (Notice! The person servicing the filter should always wear PPE)
4. Tie the sleeve .
5. Fold the liner then discard

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