

Murphil-PET is an innovative shielded Isolator designed for manipulation of PET radiopharmaceuticals.

The unique design makes it ergonomic, functional and ideal to simplify all routine operations performed in a Nuclear Medicine facility, in compliance with Radioprotection and GMP rules.

Murphil-PET is not just for gamma emitting isotopes; thanks to a “ β - shielding” upgrade kit it is also a valid solution for the manipulation of the Beta emitting therapeutic radiopharmaceuticals.

The Isolator adopts a constructive standard *ELS*[®] (Encapsulated Lead System) it consists in encapsulating the lead shieldings inside of closed frames avoiding lead contamination of environments.

Also available with a plug & play dispensing for syringes FastDose

Class “B” pre-chamber for for Generators and Synthesis modules (68-Ga)



SHIELDINGS

- Frontal door Pb 50 mm
- Internal frontal panel with Methacrylate 20 mm
- Lead glass window 50 mm Pb Eq.
- Hand passages Pb 50 mm
- Side and back panels Pb 50 mm
- Worktop Pb 50 mm
- Pre-chambers Pb 50 mm

EQUIPMENT

- Class B ventilated pre-chamber
- N. 2 ergonomic hand passages with gloves
- Multifunction touch-screen operator panel
- Internal GM probe with high range and long life capabilities
- Password hierarchy
- UV lamp with digital programmable timing

WORKING AREA

Completely laminar air flow box in AISI 316L stainless steel with Mirror finish.
Full flat working surface with active drip recovery technology.
Airtight system with inflatable seal.

Oval shape hand passages allows the arms of the operator to move vertically.

Main chamber: EEC GMP CLASS "A".
Input prefilter: HEPA, Absolute filter: HEPA
Output filter: HEPA + active carbon



SEALED INTERNAL PANEL FOR "COLD" OPERATION

The methacrylate internal panel allows to perform all the operations of "cold" preparation, with the shielded door opened, ensuring airtight.

Latex or neoprene gloves

Interlocked electric sockets.

Lighting system with LED cold lights modules.

Cables wall passages with sealed system.



PRECHAMBERS

Class "B" pre-chamber for Generators and Synthesis modules (68-Ga)

Waste Prechamber

Inlet/outlet Prechamber

All the prechambers respect EEC GMP Class "B" rules

Inlet filter: HEPA

Outlet filter: HEPA



TOUCH SCREEN OPERATOR PANEL AND DOSE CALIBRATOR

The hot cell is equipped with a touch-screen operator panel suitable to be handled with gloves. All the functions can be performed and stored on the operator panel in order to have full traceability of operations. Traceability of operations and traceability of operators. The dose calibrator is integrated in the touch screen operator panel and its control software has all the functions required by the GMP rules. (daily quality control, data saved permanently). In addition to those in the database, unlimited isotopes can be stored with unlimited geometries. Printing of customizable labels.

Accuracy: $\pm 2\%$ on all the measure range. Range: 8 Ci



OPTIONAL – SYRINGE DISPENSING

The fractionator is a Plug & Play module extremely simple to install that through two separate peristaltic pumps is able to transfer the radiopharmaceutical from a vial into a syringe. Sterile disposable capillaries and two peristaltic pumps with shielded circuit are used to transfer.

With the syringe placed inside the dose calibrator, it will fill the syringe with the radiopharmaceutical until the preset activity is reached inside it.

If the saline solution volume can be added to the syringe. is not sufficient to perform the injection saline solution can be added to the syringe.



OPTIONALS

- Additional Inlet/Outlet prechamber with elevator
- Retractable platform
- Automatic Leak-test
- Automatic valve closure of the ventilation
- Continuous speed meter of the laminar flow and the particle count
- β - shielding Kit



DIMENSIONS AND WEIGHT

External Dimensions: (w x d x h) mm 1341 x 799 x 2400

Internal Dimensions: (w x d x h) mm 1095 x 544 x 724

Weight: Kg 5.500