

GALLIA 50

HOT CELL FOR ^{68}Ga



GALLIA 50 hot cell is specifically designed to accomplish the latest GMP guidelines for the complete ^{68}Ga preparation cycle: generator elution, synthesis or cold kit processing, dispensing, and waste management.

The working area is made of AISI 316L stainless steel, Mirror Brite finishing, for easy cleaning operations. The weldings are polished and smooth, to avoid any liquid penetration. The work floor has raised edges, to prevent any leakage of possible liquid spilled.

GALLIA 50 is fully GMP compliant, and the operator has a large variety of possibilities, thanks to its standard and optional equipment.

The standard version of **GALLIA 50** is conceived to house **up to n. 3 Generators**. If the optional Waste Chamber is required, the cell can house up to n. 2 Generators.

HMI (Human Machine Interface)

A single interface for operation handling, system control, data saving and display. No additional device is required for the hot cell control. This unique feature makes the system store-save-trace any event and alarm concerning the hot cell work. Among others:

- GM for door interlock (n.2 thresholds), alarm set up and visualization
- Time saving solution: automatic on/off programming for ventilation and U.V. lamp
- **N. 3 safety passwords** (programmable): user, super-user, and maintenance/admin

GALLIA 50 grants greater efficiency, thanks to the new ventilation system which reduces the internal temperature and power consumption; a flexible design, for easier options upgrade; direct VPN connectivity, for faster remote teleassistance; and worldwide electrical compatibility.

TEMA SINERGIE
High tech, high care

GALLIA 50

HOT CELL FOR 68-GALLIUM

DIMENSIONS AND WEIGHT

- External dimensions: 1.060(w) x 1.000(d) x 2.480(h) mm
- Internal dimensions: 865(w) x 585(d) x 730(h) mm
- Weight: approx. 4.600 Kg (5.100 with the Waste Chamber option)

SHIELDING

- 50 mm Pb

INTERNAL VIEW

- Lead glass windows 165(w) x 245(h) x 50 mm Pb Eq.
- N. 2 LED lights

ACTIVE SAFETIES

- Software control for cell parameters (negative pressure, filter clogging, ventilation status, UV light timer, etc.)
- N. 1 manometer for continuous pressure status visualization (**Image 4**)
- N. 1 U.V. antibacterial lamp
- AIS: GM tube for door interlock system that prevents the main door opening when the activity level inside the cell overcomes the alarm threshold (the threshold can be set by the operator)
OPTION - CES: GM tube continuous radiation monitor on hot cell exhaust air, to control the radioactive gas release, via closure of inlet and outlet ducts until a complete decay

VENTILATION

- Laminar Air Flow on total surface
- Working area air quality classification: GMP grade A
- Air speed (electronically controlled): 0,45 m/s \pm 20%
- Inlet filter: HEPA H14
- Main filter: ULPA U15
- Outlet filter HEPA H14 + active charcoal
OPTION: - Anemometer with laminar air flow check

AIR-TIGHT

- The inflatable seals grant a Class II air tightness (ISO 10648:2). This feature classifies the hot cell to the range of an isolator

EQUIPMENT

- Generator area for max n. 3 ⁶⁸Ga generators (n. 2 if the optional Waste Chamber is required)
- **HMI:** operator software interface for handling, system control, data saving and display (**Image 6**)
- Laminar air flow and temperature check sensor
- Particle counter connection predisposition
- Dose calibrator shielded area
- Main double door: Shielded Door for radioprotection and Polycarbonate Door for air-tight and gloves mounting. The 2 doors are independent and open separately (**Image 1**)
- Multi diameter sealed pass-through system for cables (Roxtec)
- N. 1 GMP Class B pre-chamber for the introduction and extraction of cold kits, cassettes and syringes (**Images 3 and 5**)
- Arm-tray to support laptop, and/or dose calibrator control unit and/or **MorGaNA/ μ DDS-A** laptop, and printer (**Image 7**)
OPTION: - Shielded and ventilated **waste chamber**, with door opening on the front (**Image 2**)
 - Dose calibrator up/down automatic lift
 - **MorGaNA** cold kit processing system or **μ DDS-A** automatic dispenser
 - Tray for synthesis module
 - Lead pot container
 - Humidity sensor
 - VHP connection predisposition
 - Radiation monitor of the hot cell exhaust ventilation duct
 - GM tube connection to the ENVIRO area monitoring net
 - External PC for audit trail and alarm log file, saving into uncorruptible files

EXTERNAL FINISHING

- External finishing in AISI 304 Stainless Steel, Scotch Brite finishing, from floor to 2.480 (h) mm on the front.
OPTION: - The external finishing in AISI 304 Stainless Steel can be extended to the cell sides, until the contact to the false ceiling/side walls



1



2



3



4



5



6



7