

# MODULAR HOT CELL WITH LAMINAR CROSSFLOW

The MHC-FLOW provides the same features as the standard MHC with the addition that it has a fully integrated laminar crossflow for aseptically dispensing sterile radiopharmaceuticals providing a ISO 5 / GMP grade A environment. Also a shielded airlock with sliding tray to the hot cell is included.

Like the standard MHC the MHC-FLOW can be configured to meet any laboratory layout with various hot cell connections, large lead glass window providing full view of the interior, air environmental control, multiple product manipulation and product retrieval options. The design of the MHC allows for the use of various master slave manipulators.

The main compartment is shielded with 75 mm lead on all sides.

Several options such as various gas taps, laptop support and ion chamber lift are available for the MHC-FLOW.

The MHC-FLOW is compliant with the latest GMP and USP regulations.

## **Model MHC-FLOW**

### KEY FEATURES

- Integrated Laminar crossflow (ISO 5 / GMP grade A environment)
- Shielded Airlock with sliding door to the hot cell
- High speed access door
- Large interior space
- Master slave manipulation system
- Integrated ion chamber shielding
- Exterior smooth finish easy to decontaminate
- Highly configurable options

**MASTER SLAVE  
MANIPULATION  
SYSTEM**

**INTEGRATED  
LAMINAR  
CROSSFLOW**

**OPTIONAL  
RETRIEVAL  
DRAWER**

**SHIELDED  
AIRLOCK**

**HIGH SPEED  
ACCES DOOR**



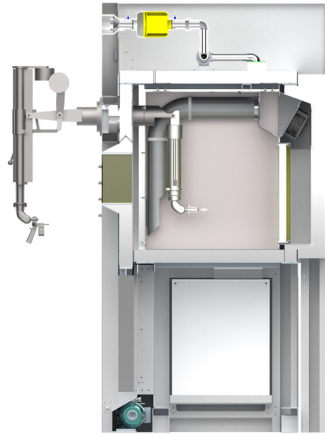
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## FUNCTIONS

- Vertical motor driven lead shielded door with safety interlocks in front wall
- Hinged acrylic door with special seals to maintain airtight integrity
- Large lead glass window:  $\pm 350 \times 300$  mm / 14\*12 inch (W\*H), 75 mm / 3 inch lead equivalent
- Shielded Airlock
- Movable tray to transport products from the airlock to the hot cell
- Analog gauge for displaying the internal pressure of the hot cell
- Basic gas connections: three technical gasses and one compressed air
- Two openings in front wall for master-slave manipulators, CRL type G-LDR
- Target line shielding: 75 mm / 3 inch lead
- Compression block including back shielding for custom entry of tubes and cables
- Two duplex electrical outlet inside the box, switched per duplex from control panel
- External duplex electrical outlet under hot cell
- LED Internal light fixtures switchable from control panel
- Steel structure built to support all components, lead is not used for any structural support

## OPTIONS

- Master-slave manipulators, CRL type G-LDR
- Lead plugs instead of master-slave manipulators
- Retrieval drawer for collection of product vials incl. Von Gahlen Type A transport container
- Solid waste vault instead of a retrieval drawer
- Extended gas regulation
- Storage cabinet beneath main compartment
- Solid and or liquid waste vault
- Digital pressure gauge instead of analog gauge
- Internal HEPA/Charcoal filter
- External shielded HEPA/Charcoal filter
- Ionization chamber shield for dose calibrator, 50 mm / 2 inch or 75 mm / 3 inch lead
- Ionization chamber lift
- Foot pedal control for ionization chamber lift
- Universal support (outlet, cable pass through, arm for laptop or ion chamber control unit)
- Glove ports in shielded front door with hinged plugs
- Glove ports in acrylic door
- Radiation detection system including safety interlock on front door
- Extended cover plates to specified height

## OPERATOR / PRODUCT SAFETY

- 75 mm lead shielding in all walls, roof and floor
- Internal stainless steel box 316L, optimal micro-surface treatment
- Interior finish complies with pharmaceutical regulations for cleaning and validation
- A fully integrated laminar crossflow for aseptically dispensing sterile radiopharmaceuticals providing a ISO 5 / GMP grade A environment with 99,995% efficient HEPA
- Air velocity in work zone: 0,45 m/s
- Recirculation volume:  $\pm 550 / 800$  m<sup>3</sup>/h
- Air inlet: HEPA filter
- Air refreshment 200 times per hour
- Constant temperature
- Low voltage control panel for all controls

## TECHNICAL DATA

- Outside dimensions:  $\pm 1600 \times 1400 \times 2650$  mm / 61\*56\*104 inch (W\*D\*H)
- Inside dimensions:  $\pm 1200 \times 820 \times 970$  mm / 47\*32\*38 inch (W\*D\*H)
- Door speed: 60 mm/s / 11 FPM
- Door opening:  $\pm 686 \times 576$  mm / 27\*23 inch (W\*H)
- Air inlet: DN65 with HEPA filter, including valve
- Air outlet: DN65, including valve
- Air exhaust: max 100 m<sup>3</sup>/h / 60 CFM
- Flow area  $\pm 610 \times 610$  mm (W\*D)
- Power connection in accordance with local requirements
- Exterior smooth finish: traffic white (RAL 9016), easy to decontaminate
- Total weight:  $\pm 10.250$  kg / 22,597 lbs

MORE INFO?  
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[www.vongahlen.com](http://www.vongahlen.com)

