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MODULAR HOT CELL

The modular hot cell (MHC) is very versatile. Over 50 years of shielding design experience have led to a customizable design that can meet many research and manufacturing requirements while maintaining compliance with local standards. The MHC is engineered and constructed for continuous protection and reliability in a ISO 7 environment.

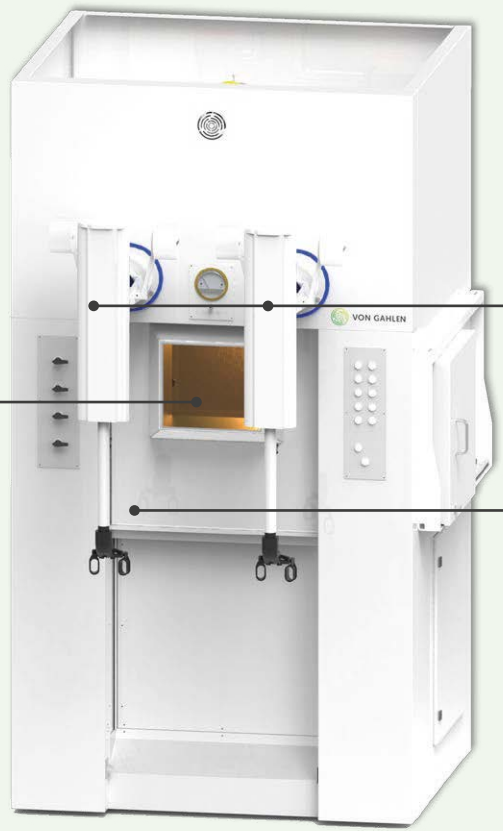
The MHC features a vertical, motor-driven lead-shielded front door and an airtight, hinged acrylic inner door. The main compartment is shielded with 3-inch or 4-inch lead on all sides. The internal stainless-steel box has rounded corners for ease of cleaning and decontamination. The MHC is prepared to integrate various brands of telemanipulators.

The design of this hot cell allows for several additional features, such as a product retrieval cabinet (PRC), an Unshielded Process Cabinet (UPC), or shielded storage for liquid or solid waste collection. This hot cell can be configured with various hot cell connections and can be seamlessly integrated into a clean room.

Many options are available, such as a charcoal filter for exhausts and basic or extended gas connections.

This hot cell is available at two heights and two different shielding thicknesses.

Variants	MHC	MHC-XL
Outside dimensions (INCH) (W*D*H)	63*47¾*101¼	63*47¾*101¼
Inside dimensions (INCH) (W*D*H)	47¼*32¼*38¼	47¼*32¼*46
Weight @3 inch shielding (Kg)	21,500	23,300
Weight @4 inch shielding (LBS)	26,900	29,100
Lead glass (INCH) (W*H)	13¾*11¾	13¾*11¾
Effective door opening (INCH) (W*H)	27*22¾	27*22¾
Exhaust (CFM	12	18



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The images shown are for illustrative purposes only. The actual product may vary in design, color, and specifications.

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STANDARD FEATURES

Radiation protection

- 3-inch or 4-inch lead shielding in all walls, roof and floor.
- Vertical, motor-driven lead-shielded outer door.
- Lead glass window in the front door (lead wall equivalent).
- Shielded ion chamber (lead wall equivalent) suitable for our commonly used Dose calibrators.

Sample & product handling

- Internal stainless steel 316L box with special micro-surface treatment.
- ionization chamber lift system.
- Acrylic inner door with static seal to maintain airtight integrity.
- Preparation for two tele-manipulators.

Air handling/ distribution

- Air classification ISO 7 environment
- Leak tightness according to ISO10648-2 Class 3 (<1% hourly leak rate).
- Air inlet: with HEPA filter (H13), including valve.
- Air exhaust: including valve.

Cleaning

- Compliant interior surface finish for cleaning and decontamination.
- Exterior finish traffic white and easy to clean.

System operation/ control

- Control via human-machine interface (HMI) with touch screen.
- Light intensity min 500 Lux.
- Visible and audible alarms.

Sensors

- Digital pressure measurement on all compartments.

Utilities

- Electrical outlets inside the compartment are switchable from HMI (in accordance with local requirements).
- Airtight pass-through for custom entry of tubes and cables.
- Basic gas connections: three technical gasses and one compressed air.

OPTIONAL FEATURES

- Fully shielded target lines from floor level to hot cell for two gas target lines, one corrugated guiding tube for multiple liquid target lines, and one waste line.
- Shielded sliding side door Left/Right (lead wall equivalent) clear opening 7¾*9¾ inch (W*H).
- Glove ports in shielded front door with hinged plugs
- (Shielded) Pass through to the adjacent compartment 7¾*9¾ inch (W*H).
- foot pedal control for ionization chamber lift system.
- Radiation detection system, including safety interlock on shielded front door(s).
- Universal support (outlet, cable pass-through, arm for laptop or ion chamber control unit) requires an additional panel.
- Internal HEPA/Charcoal exhaust filter (max exhaust limited to 9 CFM).
- External shielded HEPA/Charcoal filter.
- Extended gas regulation.
- Acid-resistant box material (Hastelloy / Kydex / stainless steel coated inner box) available upon request.
- Monitor and/or laptop mount.
- Isolation system.
- Temperature and humidity sensors.
- Standard particle counter, incl. isokinetic probe.
- Unshielded storage area (open front).
- Unshielded Process Cabinet (UPC).
- Product Retrieval Cabinet (PRD).
- Dose calibrator.
- Tele-manipulator.

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Cat 03. Product Sheet MHC-IMP 20260330 Rev 1.3