ESCO LIFESCIENCES

# Isoclean®

## Healthcare Platform Isolator (HPI-G3)

**Optimized Solution for Aseptic/Hazardous Compounding Applications**






# Isoclean® Healthcare Platform Isolator (HPI-G3) with no filter below worksta

Low maintenance, high efficient **Blowers** with variable speed control for reliable operation

**Sentinel™ Gold Microprocessor Control System** supervises all functions and monitors airflow and pressures in real-time.

Airlock **Pass Chamber** ensures work zone remains sterile during placement and removal of items.

Horizontal **Sliding Tray** prevents operator fatigue during transfer procedures.

**Electromagnetic Interlocking Doors** with time delay effect ensures safety and containment between the Pass Chamber and the Process Chamber.

Optional **Sharps Disposal System** enables smoother work flow and minimizes transfers in order to enhance patient protection and sterility

**Foot Switch** provides hands-free access to opening of the magnetic interlock minimizing operator fatigue during transfer procedures




## Guide to Isoclean® Healthcare Platform Isolator - WITHOUT Filter Below Work Zone

**HPI-4P1-G3-0**

| Model | Process Chamber Internal Width (mm) | Code | Pressure | Code | Voltage | Code | Sharps Container | Code |
|---|---|---|---|---|---|---|---|---|
| HPI-G3 | 1130 | 4 | Positive | P | 220-240 VAC, 50 Hz | 1 | No | 0 |
| | 1360 | 6 | Negative | N | 110-120 VAC, 60 Hz | 2 | Yes | S |
| | | | | | 220-240 VAC, 60 Hz | 3 | | |

# tion




*Esco Isoclean® Healthcare Platform Isolator, Model HPI-4N_.*

**HEPA (H14) Filters** with measured efficiency of >99.995% at 0.1 to 0.3 microns provides ISO Class 3 air cleanliness

**LED Lamps** deliver > 650 Lux to the work surface for superior overall illumination.

The **Process Chamber** facilitates aseptic processing in an ISO Class 3 environment.

Frameless **Tempered Glass Front Visor** with rounded edges to minimize crevices and maximize door vision panel

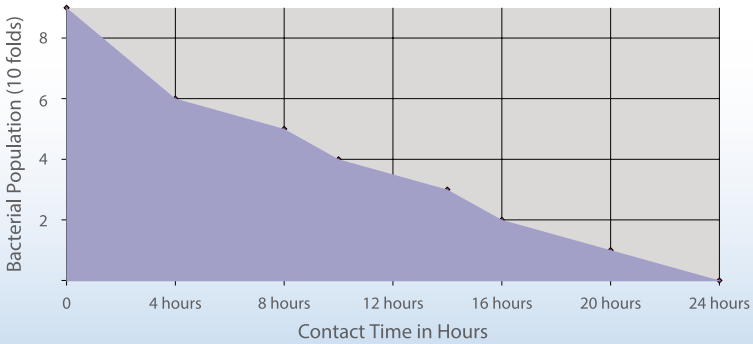
Circular **Glove Ports** (200 mm diameter) with minimal crevices, no exposed bolts and nuts

Single-piece stainless steel **Work Surface** with raised with raised edges on all sides to contain spills.

Optional **Hydraulic Stand** with caster wheels, adjustable to accommodate user height preference for sitting or standing position.

Angled **Drain Pan** for easy cleaning

## ISOCIDE™ Antimicrobial Powder-Coating




*All exterior painted surfaces are powder-coated with Esco ISOCIDE™, an antimicrobial inhibitor to minimize contamination. ISOCIDE™ is integrated into the coating substrate and cannot be washed out or diminished by repeated cleaning.*

*Performance results are available upon request. Contact Esco or your Esco Sales Representative for details.*

# Isoclean® Healthcare Platform Isolator (HPI-G3) with filter below work zone

Centrifugal, direct-drive **Blowers** designed for maximum energy efficiency and minimal maintenance

**Sentinel™ Gold Microprocessor Control System** supervises all functions and monitors airflow and pressures in real-time.

Type D2 **Pass Chamber** as per ISO 14644-7 with interlocked doors, adjustable purged duration, and time-delayed ingress/egress control allowing sufficient time for surface decontamination to minimize transfer of contamination.

Removable **Sliding Tray** (option for perforated or non-perforated) prevents operator fatigue during transfer procedures

**Electromagnetic Interlocking Doors** with time delay effect ensures safety and containment between the Pass Chamber and the Process Chamber.

**Return Filter** (option to upgrade to safe change BIBO) below work zone filters the contaminated air immediately to minimize possibility of airborne contamination

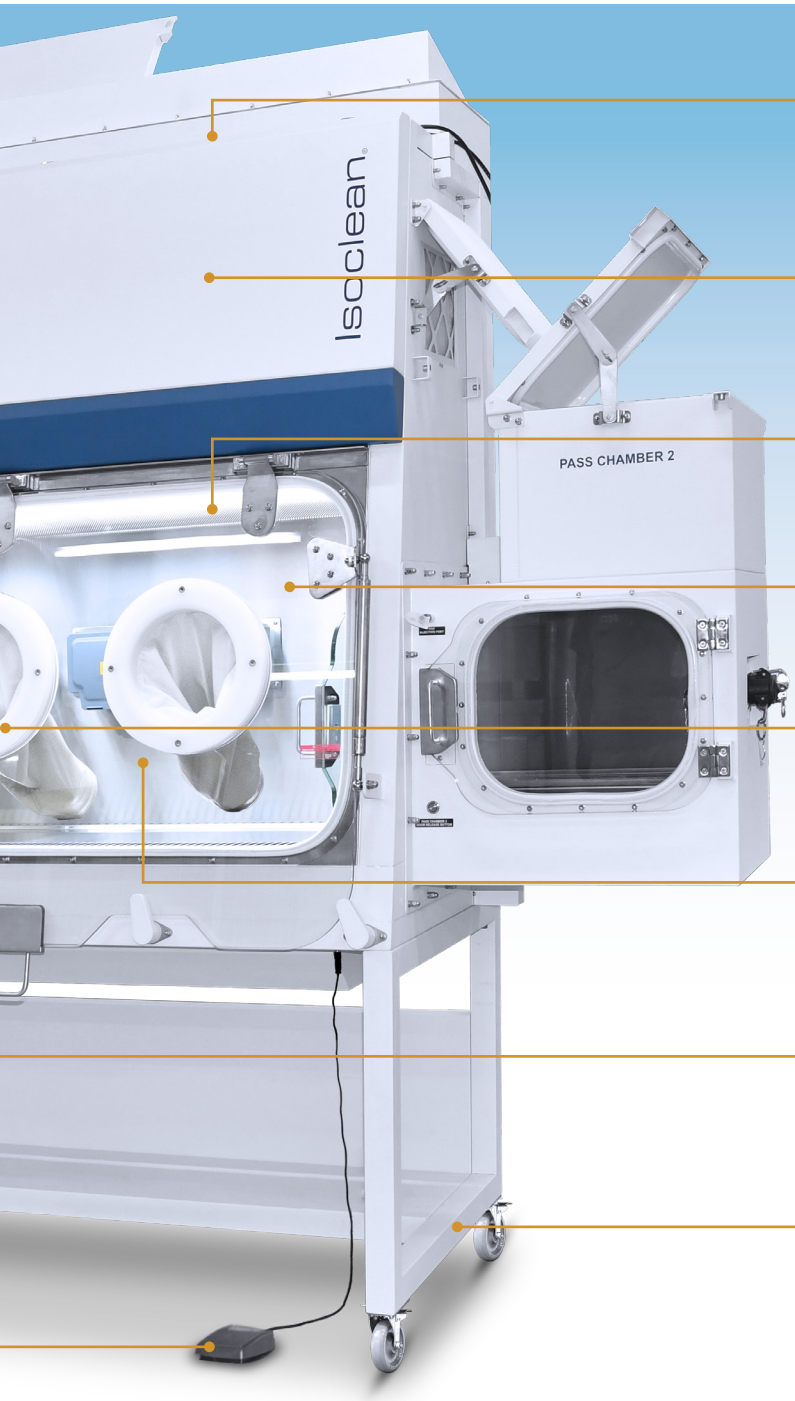
**Foot Switch** provides hands-free access to opening of the pass chamber inner door minimizing operator fatigue during transfer procedures




*Esco Isoclean® Healthcare Platform Isolator, Model HPI-4G_.*

## Guide to Isoclean® He

| Model | Process Chamber Internal Width (mm) | No. of Gloves | Voltage | Code |
|---|---|---|---|---|
| HPI-G3 | 1215 | 2G | 220-240 VAC, 50/60 Hz | 8 |
| | 1520 | 3G | 110-120 VAC, 50/60 Hz | 9 |
| | 1825 | 4G | | |




**Relay contact/volt-free contact** to send on/off status and general alarm to Building Management System (BMS)

**HEPA Filters (H14)** with measured efficiency of >99.995% at 0.1 to 0.3 microns provides ISO Class 3 air cleanliness.

**LED Lamps** deliver >650 Lux as per NSF49 to the work surface for superior overall illumination.

The **Process Chamber** facilitates aseptic processing in an ISO Class 3 environment.

Circular **Glove Ports** (200 mm diameter) with minimal crevices, no exposed bolts and nuts

Frameless **Tempered Glass Front Visor** panel with rounded edges to minimize crevices and maximize door vision panel

Single or upgradable to multiple, removable **Work Trays** for easy surface cleaning and decontamination

Optional **Hydraulic Stand** with caster wheels, adjustable to accommodate user height preference for sitting or standing position.

## althcare Platform Isolator - WITH Filter Below Work Zone

**HPI-4G8-PS2-0**

| Pressure | Code | Airflow | Code | Pass-Through Chamber | Code | Sharps Container | Code |
|---|---|---|---|---|---|---|---|
| Positive | **P** | Single Pass | **S** | None | **0** | No | **0** |
| Negative | **N** | Recirculating | **R** | Left of Right | **L** or **R** | Yes | **S** |
| | | | | Both Sides | **2** | | |

** For standard units with filter below, only a single sharps container is allowed to be placed below the work zone.*

## Introduction

The Isoclean® Healthcare Platform Isolator (HPI-G3) facilitates the isolation of a product or process while providing the required sterile/aseptic environment. It is factory-configured to operate at positive or negative pressure in single or recirculating airflow. This equipment provides a comprehensive range of personnel and product protection in addition to the surrounding work areas and the environment.

## Application

- Pharmacy Compounding (Chemotherapy/TPN)
- Small-scale Potent Material Handling
- Aseptic Processing
- Research and Development
- Cell Processing

## Isolation Technology

Isolation containment systems provide inherently superior sterility compared to open front clean air devices such as laminar flow clean benches and Class II biological safety cabinets. USP <797> guidelines specify that isolators may be situated in an area subject to less severe environmental controls compared with open front clean air devices.

When used as part of a system that includes operator aseptic technique training, process validation, expiration setting and product quality maintenance after the CSP leaves the pharmacy, isolators are an effective solution especially for lower-volume pharmacies. They reduce operating and renovation costs, take up less space, and are easier to maintain.

The positive pressure HPI-G3 model is suitable for work involving non-hazardous materials, while the negative pressure isolator isolator is suitable for work involving hazardous materials eg, cytotoxic compounding applications.

The work zone and pass chamber interchange are either under positive or negative pressure to the room in order to maintain sterility or operator protection, respectively, in case of a breach in the barrier isolation system.

When hazardous drugs compounded have the potential to volatilize, the negative pressure, single pass isolator should be selected. Optional carbon filter may be added.

## Maximum Protection and Sterility

- An improved mini-pleat separation technique maximizes filter surface area, improves efficiency and extends filter life over conventional separation.
- The HEPA (H14) supply filters with measured efficiency of >99.995% at 0.1 to 0.3 microns provide clean air to the worksurface in a gentle vertical laminar flow.
- Superior air cleanliness of ISO Class 3.
- Laminar (Unidirectional) airflow within work zone and pass chamber enables recovery of chamber atmosphere to ISO Class 3 conditions within 3 minutes following a worst-case con-tamination event. The entire work zone air is changed 20-30 times per minute.
- Airlock pass chamber ensures work zone remains sterile during ingress and egress of items.
- The electromagnetic interlocking door mechanism with time-delayed ingress/egress control allows sufficient time for air purging to minimize transfer of contamination.
- Optional sharps disposal system enables smoother work flow and minimizes transfers in order to enhance patient protec-tion and sterility. Sharps may be disposed through the work surface into disposal bins while minimizing contamination of the work zone.
- Improved safe-change cuff rings enable glove change with zero risk of contamination.

## Ergonomic Enhancements

Ergonomic enhancements minimize stress associated with long periods of operation.

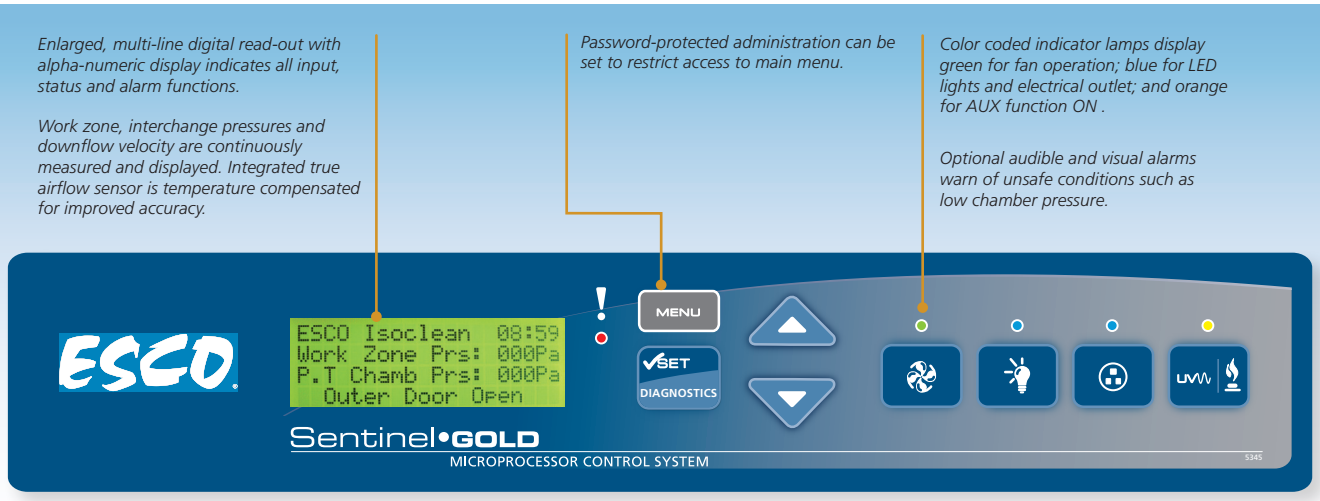
- Ergonomically styled sloped front reduces glare and allows easier reach into the work area. Rounded edges minimize crevices and maximize door vision panel.
- Sliding tray facilitates material transfer without the operator having to reach into the pass chamber interchange area.
- Circular glove ports (200 x 200) mm with minimal crevices, no exposed bolts and nuts
- Optional hydraulic stand allows the operator to adjust the work surface height to preference, for both sitting and standing operation.
- Adaptable glove system allows all common surgical gloves to attach to the cuff ring.
- Lamps deliver >650 Lux to the work surface for superior over-all illumination.
- Foot switch provides hands-free access to opening of the magnetic interlock minimizing operator fatigue during trans-fer procedures.

## Cabinet Construction

Robust construction and enhanced safety features qualify the HPI-G3 for the most demanding laboratory applications. The isolator is fully assembled and ready to install and operate when shipped.

- The cabinet exterior structure is constructed of industrial-grade electrogalvanized steel.
- External surfaces are coated with ISOCIDE™ antimicrobial coating to protect against surface contamination and inhibit bacterial growth. ISOCIDE™ eliminates 99.9% of surface bacteria within 24 hours of exposure.

- The cabinet interior is constructed of durable and pharmaceutical-grade 316L stainless steel with large radius corners to simplify cleaning.
- Removable tray components to provide easy access and encourage surface decontamination.
- Single or upgradable to multiple, removable work trays for easy surface cleaning and decontamination.
- Hinged window may be opened for thorough access into the work zone.




*Sentinel Microprocessor Control System, Programmable*

*When programmed ON*
- *the start-up sequence confirms status with Air Safe and local time display.*
- *the Personal Identification Number (PIN) access restricts unauthorized adjustments.*

## Control System

The Esco Sentinel™ Gold microprocessor-based control system supervises operation of all cabinet functions. Controls are configurable to meet user requirements. Features of the main control panel include:

- Work zone and pass chamber pressures are monitored and displayed on the LCD screen.
- Continuous monitoring and display of isolator laminar (downflow) airflow on large, easy-to-read LCD display.
- An optional alarm package is available for users with more sophisticated requirements.

## Fan Efficiency

- The HPI-G3 fan system is designed for high efficiency and minimal maintenance.
- Centrifugal, direct-drive, external rotor motors reduce operating costs.
- Unique Esco motor/fan orientations minimize noise and vibration.
- Built-in solid-state variable speed controllers are infinitely ad-justable from Off to Maximum.

## Safety and Certification

All components used in Esco products meet or exceed all applicable safety requirements.

- Each isolator is individually factory tested for electrical safety.
- Documentation specific to the cabinet serial number is maintained on file.

## Warranty

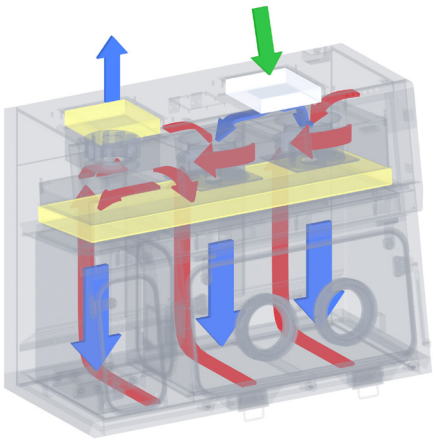
One year warranty (excluding consumables). Consumables are ballast, LED, and filters. The warranty will cover all other parts including the blower, fan switch, and electrical main board. During the period of warranty, any repair, modification, testing and commissioning performed by any unauthorized party other than Esco Service Team will void the warranty of the unit.

## Accessories and Options

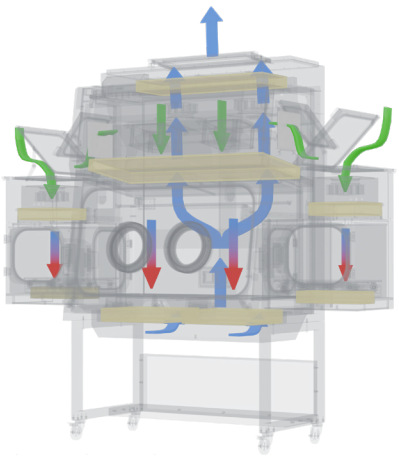
HPI-G3 is available as a standard bench top unit (for HPI-G3 without filter below models). Additional accessories are available for further enhancement.

### Support Stands

- Fixed height, available 713 mm (28”) or 864 mm (34”)
  - With leveling feet, 21.4 mm (1”) (SPL-_ _0)
  - With casters (SPC-_ _0)
- Telescoping height stand for leveling feet (STL-_ _0), nominal range 660mm to 885mm (26” to 34.84”) - Adjustable in 25.4 mm (1”) increments
- Adjustable hydraulic stand, with casters, elevates to accommodate user preference for sitting or standing work surface height (SHM-_-G3)



Ambient Air Filtered Air Potentially Contaminated Air



Ambient Air Filtered Air Potentially Contaminated Air

*Ambient air is pulled through the inlet pre-filter (>60% efficiency as per EN 779 for positive pressure model) located on top of the isolator. The pre-filter traps large size particles to extend the life of the supply HEPA (H14) filter.*

*Air from the top inlet and from work zone is pulled by the fan which creates a positive pressure on the plenum that creates downflow. In positive pressure model, the proprietary plenum design forces more air into the work zone, increasing its pressure relative to the pass-thru. In negative pressure model, the work zone and pass-thru interchange are under negative pressure to the room, thereby preventing contaminants from leaving the work zone in case of a breach. The H14 downflow filter creates a laminar and particle-free ISO Class 3 air cleanliness as per ISO 14644-1 (equivalent to Class 1 as per US Fed Std 209E) inside the isolator to protect the work material inside the main chamber and pass-thru.*

*Air from the work zone and pass-thru is quickly purged out by the fan to keep the area clean. The fan pulls approximately 90% of the purged air back to the plenum and after passing through the HEPA downflow filter again, it is recirculated back to the work one and pass chamber. The high rate of airflow recirculation helps to prolong filter life and reduces the chances of ambient contaminants entering the work zone.*

*Approximately 10% of the purged air is exhausted through an HEPA-filter to prevent heat build-up inside the isolator that can be detrimental to drug compounding. This exhausted air is replenished by ambient air coming from the top inlet pre-filter and a filter with 80% efficiency for positive pressure model.*

*Ambient air is pulled through the inlet pre-filter located on top of the isolator. The pre-filter traps large size particles to extend the life of the supply HEPA filter.*

*Air from the top inlet and from work zone is pulled by the main fan, which creates positive pressure on the plenum that creates downflow. Work zone pressure is always higher than the pass-through, to prevent contaminants from entering the work zone through the pass-through.*

*The downflow filter creates a full unidirectional airflow and particle-free ISO Class 3 environment inside the isolator to protect the work material inside the main chamber and pass-through. Air from the work zone and pass-through is quickly purged by the fans to keep the area clean.*

| | Design | Cabinet Performance | Air Quality | Filtration | Electrical Safety |
|---|---|---|---|---|---|
| **Standards Compliance** | USP 797, USA<br>USP 800, USA<br>PIC/S<br>EU GMP | CETA CAG 001-2005, USA<br>CETA CAG 002-2006, USA<br>AS 4273, AUS<br>ISO 10648-2, Class 2 at Factory and Site Testing<br>DIN 12980:2015-08* | ISO 14644.1, ISO Class 3, Worldwide | EN-1822, Europe<br>IEST-RP-CC001.3, USA<br>IEST-RP-CC007, USA<br>IEST-RP-CC034.1, USA | IEC 61010-1, Worldwide<br>EN 61010-1, Europe<br>UL 61010-1, USA<br>CAN/CSA -22.2, No 61010-1 |

**Cabinet performance of Isoclean® Healthcare Platform (HPI-G3) complies to the proposed guidelines in the DIN 12980:2015-08 draft standard.*

## Other Options and Accessories

- Electrical outlets
- UV lamp
- IV bars with hooks
- Carbon VOC with filter housing*
- Top Exhaust Collar and Side Exhaust Collar (customized)+
- Anti-blow back valve*
- Manual glove leak tester
- CCTV and rear view adaptation
- Sharps container
- Granite slab with leveling feet for accurate weighing
- Auto-damper upgrade with inflatable seals (for HPI N/P only)
- Additional mechanical latches to prevent PTC doors from opening during power outage

** for HPI-2G/HPI-3G/HPI-4G models only* *+ for negative isolator only*

## Manual Glove Leak Tester

**Features**

- Built-in digital pressure differential gauge for real time reading
- Quick connect fitting
- Quantitative pinhole measurement
- Simple operation
- Single glove test
- Pneumatic Tubing Connections





## Testing and Validation

- Chamber static and dynamic pressure to verify the isolator pressure at rest or during normal operation as per CETA CAG-002-2006
- Smoke pattern test to ensure the direction of airflow to be laminar/unidirectional
- Filter Leak Tests verify the integrity of HEPA filters as installed.
- Downflow Velocity Tests verify adequate unidirectional airflow velocities.
- Class 2 Containment Enclosure at Factory Test for process and pass chambers in accordance with ISO 10648-2.
- Particle Counts (Air Cleanliness Tests) verify air cleanliness in accordance with ISO 14644-1.
- Product Ingress and Egress Tests determines if the isolator work zone can maintain ISO Class 3 during transfer procedures.
- Breach Test verifies user protection in case of a glove failure. Unit will become negative pressure with inward velocity of ≥ 0.4 m/s (80 fpm) for HPI without filter below work zone and ≥ 0.51 m/s (100 fpm) for HPI with filter below work zone.
- Operator Comfort Tests include noise, light and vibration.

## Pressure Test

HPI-G3 is a Class 2 Containment Enclosure at Factory Testing in accordance with ISO 10648-2 standard.

Capable of carrying out a pressure test (Manual). Compressed air is injected to 280-290 Pa and count down starts when the pressure drops to 250 Pa. Measurements are taken every 5 mins for total of 30 mins. These measurements are recorded and computed as per ISO 10648-2 standard.



## Safe Glove Change Procedure: Replacing Disposable Gloves

Safe change design system allows glove change at the middle of a process or when the equipment is in operation.



1. Pull the Glove/Sleeve outside the isolator.



2. Fold the fingers of the glove inside the cuff ring.



3. Remove the outer ring.



4. Carefully roll the gloves from the middle groove to the outer groove.



5. Take the new glove and ensure the thumb is at the top. Stretch the ring of the new glove over the port and over the old glove onto the middle groove.



6. Install the ring up to the middle groove.



7. Carefully loosen the old glove from the outer groove.



8. Put the glove/sleeve inside the isolator.

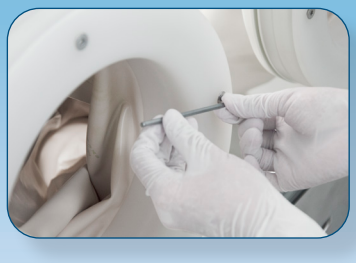


9. Working with one hand in the adjacent glove, carefully pull the old glove.



10. The procedure is now complete.

## Safe Glove Change Procedure: Replacing the Sleeves



1. Remove the screws that secure the glove port cover



2. Remove the outer glove port cover



3. Remove the “O” ring



4. Carefully roll the ring of the sleeves/gloves from the inner groove to the outer groove of the port



5. Ensure that the old sleeves/gloves is inside the isolator



6. Take the new sleeves and ensure the thumb is at the top and stretch the “O” ring of the new sleeves over the port and over the old sleeves into the inner groove



7. Replace the “O” ring into the outer groove of the glove port



8. Working with one hand in the adjacent sleeves, carefully work from the outer ring and into the isolator. The old sleeves needs to be remove while under the new sleeves

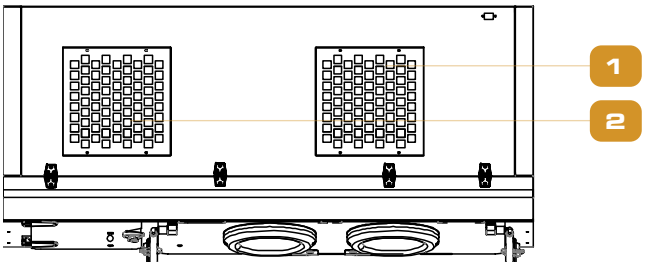


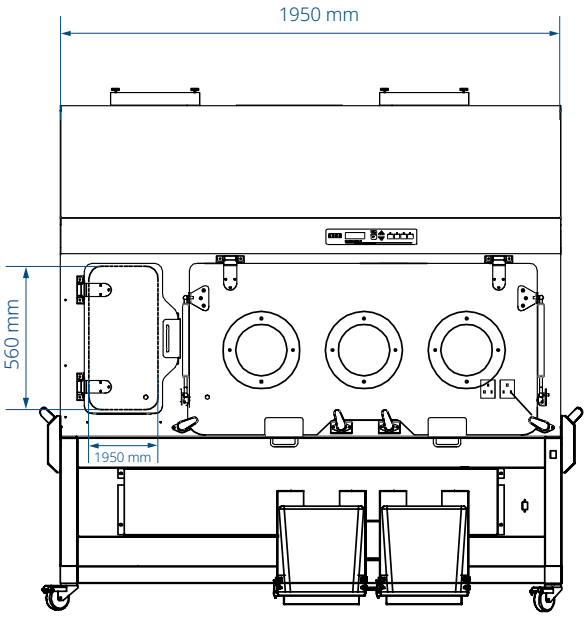
9. Return the glove port outer cover.



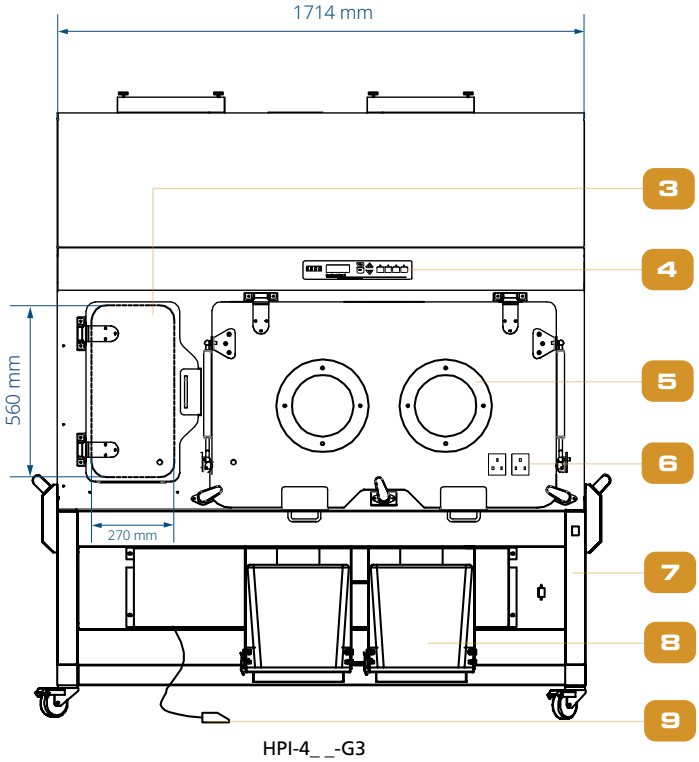
10. Secure the port cover with the screws. The procedure is now complete

## ENGINEERING DRAWING

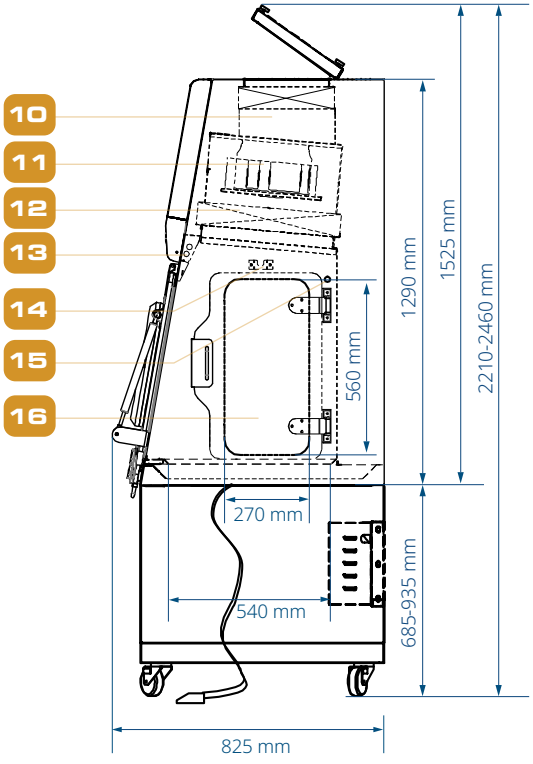



HPI-6_ _-G3




HPI-4_ _-G3




1. *Inlet Pre-filter 80% efficiency*
2. *Exhaust H14 Filter*
3. *Pass-Thru, Hinged Outer Door*
4. *Esco SentinelTM Gold Microprocessor Contol System*
5. *Round Glove Ports (200 mm)*
6. *Electrical Outlet (Optional)*
7. *Hydraulic Height Adjustable Base Stand with Casters (Optional)*
8. *Sharps disposal system (Optional)*
9. *Foot switch*
10. *Exhaust Fan*
11. *Supply Fan*
12. *Downflow H14 Filter*
13. *LED Lamp*
14. *IV Bar (Optional)*
15. *UV Lamp (Optional)*
16. *Pass-thru, Hinged Inner Door*

# GENERAL SPECIFICATIONS

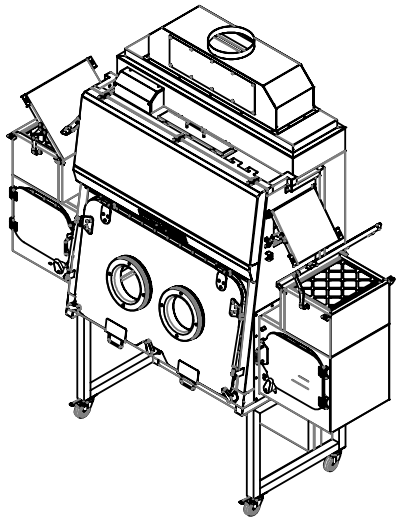
Isoclean® Healthcare Platform Isolator (HPI-G3)
(without filter below)

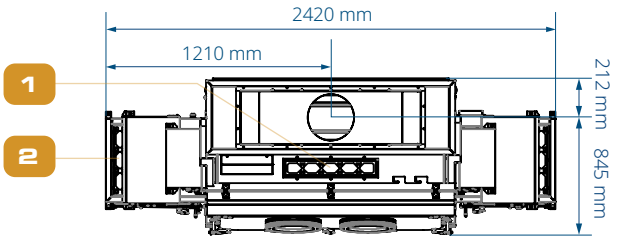
| | | HPI-4_ _-G3 | | HPI-6_ _-G3 | |
|---|---|---|---|---|---|
| **Process Chamber Nominal Size (Width)** | | 1130 mm | | 1360 mm | |
| **External Dimensions (W x D x H)** | Without stand | 1714 x 825 x 1290 mm (67.5" x 3.25" x 50.8") | | 1950 x 825 x 1290 mm (76.8" x 3.25" x 50.8") | |
| | With SPC-A/SPL-A (713mm, 28") | 1714 x 825 x 2003 mm (67.5" x 3.25" x 78.85") | | 1950 x 825 x 2003 mm (76.8" x 3.25" x 78.85") | |
| | With SPC/SPL (860mm, 34") | 1714 x 825 x 2150 mm (67.5" x 3.25" x 84.64") | | 1950 x 825 x 2150 mm (76.8" x 3.25" x 84.64") | |
| | With STL (660 to 885 mm) | 1714 x 825 x 1950 to 2175 mm (67.5" x 32.48" x 76.77" to 85.62" ) | | 1950 x 825 x 1950 to 2175 mm (76.78" x 32.48" x 76.77" to 85.62") | |
| | With STC (630 to 855 mm) | 1714 x 825 x 1920 to 2145 mm (67.5" x 32.48" x 75.59" to 84.45" ) | | 1950 x 825 x 1920 to 2145 mm (76.78" x 32.48" x 75.59" to 84.45") | |
| | With SHM (685 to 935 mm) | 1714 x 825 x 1975 to 2225 mm (67.5" x 3.25" x 77.75" to 87.59" ) | | 1950 x 825 x 1975 to 2225 mm (76.8" x 3.25" x 77.75" to 87.59" ) | |
| **Process Chamber Internal Dimension (W x D x H)** | | 1130 x 540 x 650 mm (44.5" x 21.3" x 25.6") | | 1360 x 540 x 650 mm (54.5" x 21.3" x 25.6") | |
| **Pass Chamber Internal Dimension (W x D x H)** | | 318 x 540 x 650 mm (12.5" x 21.3" x 25.6") | | | |
| **Pass Chamber Dimension (W x D x H)** | Inner Door | 360 X 600 mm | | | |
| | Outer Door | | | | |
| **Airflow Regime** | | Recirculating | | | |
| **Pressurization** | | Factory Configured Positive (Process chamber: +37 Pa (minimum); PTC: +25 Pa (minimum)) or Negative (Process chamber: -25 Pa (minimum); PTC: -37 Pa (minimum)) Pressure | | | |
| **Glove Port Diameter** | | 200 mm (Circular) Note: Oval glove port (200 x 300 mm) is optional as an upgrade | | | |
| **Glove Port Quantity** | | 2 | | 3 | |
| **Chamber Environment** | | ISO Class 3 for Process Chamber (Grade A) | | | |
| **Process Chamber Downflow Velocity** | | 0.4 +/- 20% m/s (1.31 f/s) | | | |
| **Pre-filter (if equipped with Carbon Filter)** | | Panolair Inlet Filter F7/F8 | | | |
| **Downflow and Exhaust Filter Type** | | HEPA (H14) Filter; Fully Compliant With EN 1822 (H14 and IEST-RPCC001.3 Requirements | | | |
| **Filter Efficiency** | | >99.995% for particle 0.1-0.2 microns (MPPS, as per EN1822) | | | |
| **Lighting Level** | | >650 Lux | | | |
| **Sound Level** | | ≤ 67 dBA | | | |
| **Isolator Construction** | Main Body | 1.2 mm (0.05") 18 gauge electro-galvanized steel with white oven-baked epoxy-polyester antimicrobial powder-coated finish | | | |
| | Work Tray | 1.5 mm (0.06") 16 gauge stainless steel, type 316L, with 4B finish | | | |
| | Internal Process Chamber | 1.2mm (0.05") 18 Gauge Stainless Steel, Type 316L | | | |
| | Internal Pass Chamber | 1.2mm (0.05") 18 Gauge Stainless Steel, Type 316L | | | |
| **Electrical** | **220-240V, AC, 50 Hz, 1Ø** | **HPI-4N1-G3** | **HPI-4P1-G3** | **HPI-6N1-G3** | **HPI-6P1-G3** |
| | Cabinet Full Load Amps (FLA) | 2.5 A | 2A | 3A | TBD |
| | Optional Outlets FLA | 5 A | 5 A | 5A | 5 A |
| | Cabinet Nominal Power | TBD | TBD | TBD | TBD |
| | Cabinet BTU | TBD | TBD | TBD | TBD |
| | **110-120V,AC, 60 Hz, 1Ø** | **HPI-4N2-G3** | **HPI-4P2-G3** | **HPI-6N2-G3** | **HPI-6P2-G3** |
| | Cabinet Full Load Amps (FLA) | 8A | 6.8A | TBD | TBD |
| | Optional Outlets FLA | 5 A | 5 A | 5 A | 5 A |
| | Cabinet Nominal Power | 295W | 525W | TBD | TBD |
| | Cabinet BTU | 2030 BTU/hr | 1793 BTU/hr | TBD | TBD |
| | **220-240V, AC, 60 Hz, 1Ø** | **HPI-4N3-G3** | **HPI-4P3-G3** | **HPI-6N3-G3** | **HPI-6P3-G3** |
| | Cabinet Full Load Amps (FLA) | 3 A | TBD | TBD | TBD |
| | Optional Outlets FLA | 5 A | 5 A | 5 A | 5 A |
| | Cabinet Nominal Power | 520 W | TBD | TBD | TBD |
| | Cabinet BTU | 1774 BTU/hr | TBD | TBD | TBD |
| **Options/Accessories** | Adjustable Hydraulic Stand | ✓ | | ✓ | |
| | Carbon Filter | ✓ | | ✓ | |
| | CCTV | ✓ | | ✓ | |
| | Drain | ✓ | | ✓ | |
| | Electrical Outlet | ✓ | | ✓ | |
| | Glove leak Tester | ✓ | | ✓ | |
| | IV Bar with S hooks | ✓ | | ✓ | |
| | UV Lamp | ✓ | | ✓ | |
| | Automated Pressure Hold Test | ✓ | | ✓ | |
| | Rear View Screen Adaptation | ✓ | | ✓ | |
| | Single-piece Trays | ✓ | | ✓ | |
| | Multiple-piece Trays | ✓ | | ✓ | |
| | Sharps Disposal | ✓ | | ✓ | |
| **Shipping Weight** | | 654 kg (1441.82 lbs) | | TBD | |
| **Shipping Dimensions, Maximum (W x D x H)** | | 1950 x 950 x 2321.1 mm (76.77" x 37.40" x 91.38") | | TBD | |

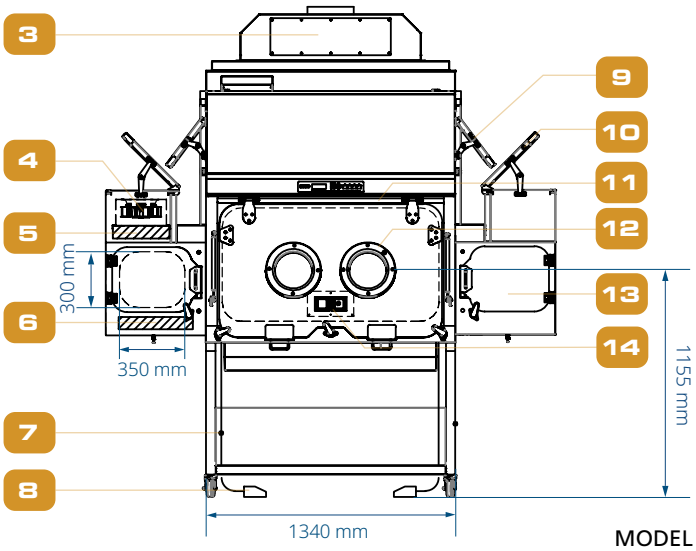
*Note:*
** Add 290mm height, with Exhaust Collar and Carbon Filt*

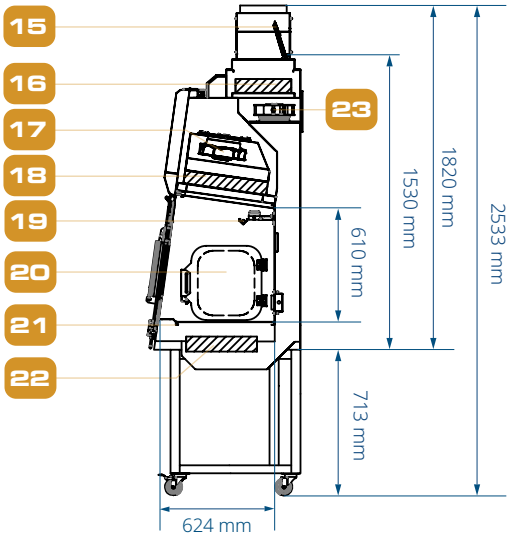
## ENGINEERING DRAWING

*NOTE: FOR CARBON FILTER OPTION, ADD 80mm TO OVERALL HEIGHT*

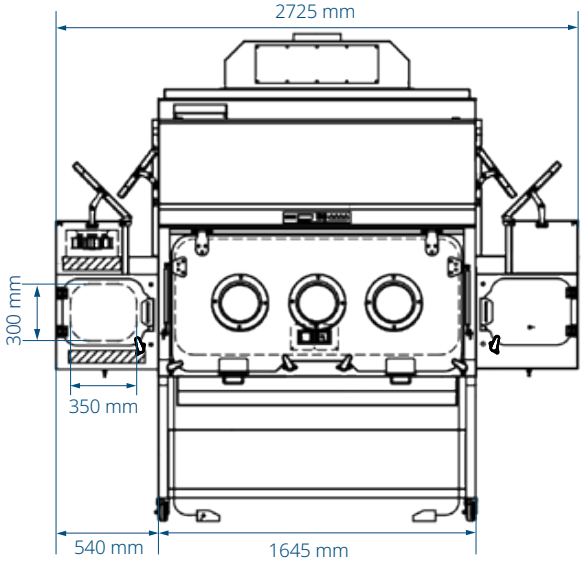




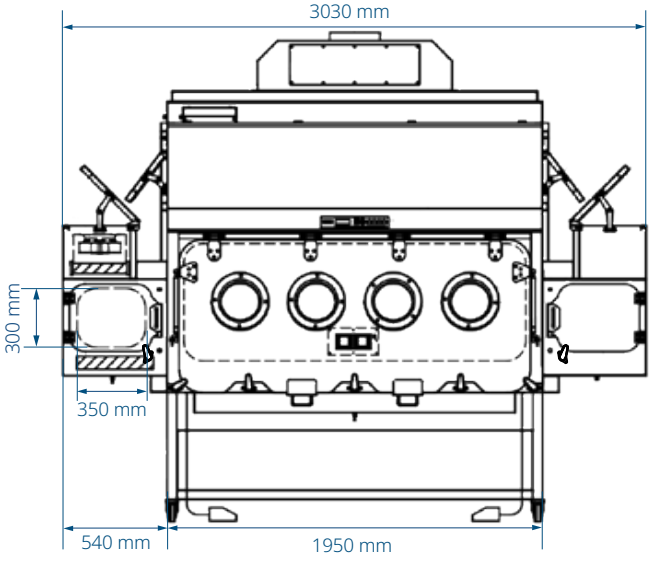




MODEL HPI-2G




MODEL HPI-3G




MODEL HPI-4G

1. *Exhaust Collar*
2. *Pass Chamber Inlet Pre-filter (G4 Pre-filter)*
3. *Process Chamber Inlet, Manual Damper*
4. *Pass Chamber Supply Fan*
5. *Pass Chamber Supply Filter, HEPA (H14) Filter*
6. *Pass Chamber Exhaust Filter, HEPA (H14) Filter*
7. *Support Stand*
8. *Foot Switch for Inner Door*
9. *Process Chamber Inlet Pre-filter (G4 Pre-filter)*
10. *Pass Chamber Inlet, Manual Damper*
11. *Esco Sentinel™ Gold Microprocessor Control System*
12. *Circular Glove Ports (200 mm)*
13. *Pass Chamber Outer Door*
14. *2x Electrical Outlet Provision*
15. *Exhaust Collar, Manual Damper (for negative pressure isolator only)*
16. *2nd Exhaust Filter, HEPA (H14) Filter*
17. *Process Chamber Supply Fan*
18. *Process Chamber Supply Filter, HEPA (H14) Filter*
19. *IV Bar with 6 Hooks (Optional)*
20. *Pass Chamber Inner Door*
21. *Work Zone Tray*
22. *1st Exhaust Filter HEPA (H114) Filter*
23. *Exhaust Fan*

# GENERAL SPECIFICATIONS

Isoclean® Heathcare Platform Isolator
(with filter below)

| | | HPI-2G | HPI-3G | HPI-4G |
|---|---|---|---|---|
| **Process Chamber Nominal Size (Width)** | | 1215 mm (47.83") | 1520 mm (59.84") | 1825 mm (71.85") |
| **External Dimension (with two Pass Chamber) (WxDxH)** | Without stand | 2420 x 845 x 1560 mm (95.28" x 33.27" x 61.42") | 2725 x 845 x 1560 mm (107.28" x 33.27" x 61.42") | 3030 x 845 x 1560 mm (119.29" x 33.27" x 61.42") |
| | With SPC-A/SPL-A (713mm, 28") | 2420 x 845 x 2273mm (95.28" x 33.27" x 89.49") | 2725 x 845 x 2273 mm (107.28" x 33.27" x 89.49") | 3030 x 845 x 2273 mm (119.29" x 33.27" x 89.49") |
| | With SPC-B/SPL-A (860mm, 34") | 2420 x 845 x 2420mm (95.28" x 33.27" x 95.28") | 2725 x 845 x 2420 mm (107.28" x 33.27" x 95.28") | 3030 x 845 x 2420 mm (119.29" x 33.27" x 95.28") |
| | With STL (660 to 885 mm) | 2420 x 845 x 2220 to 2445 mm (95.28" x 33.27" x 87.40" to 96.26") | 2725 x 845 x 2220 to 2445 mm (107.28" x 33.27" x 87.40" to 96.26") | 3030 x 845 x 2220 to 2445 mm (119.29" x 33.27" x 87.40" to 96.26") |
| | With STC (630 to 855 mm) | 2420 x 845 x 2190 to 2415 mm (95.28" x 33.27" x 86.22" to 95.08") | 2725 x 845 x 2190 to 2415 mm (107.28" × 33.27" × 86.22" to 95.08") | 3030 x 845 x 2190 to 2415 mm (119.29" × 33.27" x 86.22" to 95.08") |
| | With SHM (685 to 935 mm) | 2420 x 845 x 2245 to 2495 mm (95.28" x 33.27" x 88.39" to 98.23") | 2725 x 845 x 2245 to 2495 mm (107.28" x 33.27" x 88.39" to 98.23") | 3030 x 845 x 2245 to 2495 mm (119.29" x 33.27" x 88.39" to 98.23") |
| **Process Chamber Internal Dimension (W x D x H)** | | 1215 x 624 x 610 mm (47.83" x 24.57" x 24.02") | 1520 x 624 x 610 mm (59.84" x 24.57" x 24.02") | 1825 x 624 x 610 mm (71.85" x 24.57" x 24.02") |
| **Pass Chamber Internal Dimension (W x D x H)** | | 577 x 410 x 320mm (22.72" x 16.14" x 12.60") | | |
| **Pass Chamber Door Dimension (W x H)** | Inner door | 428 x 400 mm (16.85" x 15.75") | | |
| | Outer door | 475 x 350 mm (18.70" x 13.78") | | |
| **Airflow Regime** | | Factory Configured Recirculating or Single Pass | | |
| **Pressurization** | | Factory Configured Positive (Process chamber: +37 Pa (Min); PTC: +25 Pa (Min)) or Negative (Process chamber: -25 Pa (Min); PTC: -37 Pa (Min)) Pressure | | |
| **Glove Port Diameter** | | 200 mm (Circular) Note: Oval glove port (200 x 300 mm) is optional as an upgrade | | |
| **Glove Port Quantity** | | 2 | 3 | 4 |
| **Chamber Environment** | | ISO Class 3 for Process Chamber (Grade A) | | |
| **Process Chamber Downflow Velocity** | | 0.4 +/- 20% m/s (1.31 fps) | | |
| **Pre-filter** | | G4, panel, polyester fiber media | | |
| **Downflow and Exhaust Filter Type** | | HEPA (H14) Filter; Fully Compliant With EN 1822 (H14) and IEST-RPCC001.3 Requirements | | |
| **Filter Efficiency** | | >99.995% for particle 0.1-0.2 microns (MPPS, as per EN1822) | | |
| **Lighting Level** | | >650 Lux | | |
| **Sound Level** | | ≤ 67 dBA | | |
| **Isolator Construction** | Main Body | 1.5 mm (0.06") 16 gauge electro-galvanized steel with white oven-baked epoxy-polyester antimicrobial powdercoated finish | | |
| | Work Tray | 1.5 mm (0.06") 16 gauge stainless steel, type 316L, with 4B finish | | |
| | Internal Process Chamber | 1.5mm (0.06") 16 Gauge Stainless Steel, Type 316L | | |
| | Internal Pass Chamber | 1.5mm (0.06") 16 Gauge Stainless Steel, Type 316L | | |
| **Electrical** | 220-240V, AC, 50 Hz, 1Ø | HPI-2G8-_ _ _ - _ | HPI-3G8_-_ _ _ - _ | HPI-4G8_-_ _ _ - _ |
| | Cabinet Full Load Amps (FLA) | 10 A | 12.1 A | 12.1 A |
| | Optional Outlets FLA | 10 A (5A per outlet) | 10 A (5A per outlet) | 10 A (5A per outlet) |
| | Cabinet Nominal Power | 493 W | TBD | TBD |
| | Cabinet BTU | 1682 BTU/hr | TBD | TBD |
| | 110-120V,AC, 60 Hz, 1Ø | HPI-2G9-_ _ _ - _ | HPI-3G9_-_ _ _ - _ | HPI-4G9_-_ _ _ - _ |
| | Cabinet Full Load Amps (FLA) | 20A | 20A | 20A |
| | Optional Outlets FLA | 10 A (5A per outlet) | 10 A (5A per outlet) | 10 A (5A per outlet) |
| | Cabinet Nominal Power | TBD | TBD | TBD |
| | Cabinet BTU | TBD | TBD | TBD |
| **Options/ Accessories** | Adjustable Hydraulic Stand | ✓ | ✓ | ✓ |
| | Carbon Filter | ✓ | ✓ | ✓ |
| | CCTV | ✓ | ✓ | ✓ |
| | Drain | ✓ | ✓ | ✓ |
| | Electrical Outlet | ✓ | ✓ | ✓ |
| | Glove Leak Tester | ✓ | ✓ | ✓ |
| | IV Bar with S hooks | ✓ | ✓ | ✓ |
| | UV Lamp | ✓ | ✓ | ✓ |
| | Rear View Screen Adaptation | ✓ | ✓ | ✓ |
| | Single-piece Trays | ✓ | ✓ | ✓ |
| | Multiple-piece Trays | ✓ | ✓ | ✓ |
| | Anti-blow Back Valve (ABBV) | ✓ | ✓ | ✓ |
| | Automated Pressure Hold Test | ✗ | ✗ | ✗ |
| | Sharps Disposal | ✓ | ✓ | ✓ |
| **Shipping Weight**** | | 835 kg (1840.47 lbs) | 967 kg (2133.33 lbs) | 1100 kg (2425.08 lbs) |
| **Shipping Dimensions, Maximum (W x D x H)** | | 2600 x 1050 x 2512 mm (102.36" x 41.34" x 98.90") | TBD | 3200 x 1050 x 2512 mm (125.98" x 41.34" x 98.90") |

*Note:*
*** Weight is rough estimation, including support stand SHM. Contact Esco for more details*
** Add 260 mm height, with Top Exhaust Collar*
** No height difference with Carbon Filter*

| Building Exhaust Requirement | | HPI-2G | HPI-3G | HPI-4G |
|---|---|---|---|---|
| Recirculating | 1 pass chamber | 531 cmh @ 200 Pa | 647 cmh @ 250 Pa | 765 cmh @ 300 Pa |
| | 2 pass chamber | 595 cmh @ 250 Pa | 711 cmh @ 300 Pa | 828 cmh @ 350 Pa |
| Total Exhaust (Single Pass) | 1 pass chamber | 1062 cmh @ 400 Pa | 1295 cmh @ 500 Pa | 1530 cmh @ 600 Pa |
| | 2 pass chamber | 1189 cmh @ 500 Pa | 1422 cmh @600 Pa | 1657 cmh @ 700 Pa |

*Note: Tolerance for building exhaust requirement is 30%*

# ORDERING INFORMATION

*(Please contact the nearest Esco office for the updated Item Codes and Model Codes)*

| Isoclean® Healthcare Platform Isolator - WITHOUT Filter Below Work Zone | | |
|---|---|---|
| **Model Code** | **Item Code** | **Description** |
| HPI-4P1-G3-0 | 2060097 | 4' Positive Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-4P2-G3-0 | 2060098 | 4' Positive Pressure Isolator Only, No Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-4P3-G3-0 | 2060099 | 4' Positive Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-6P1-G3-0 | 2060100 | 6' Positive Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-6P2-G3-0 | 2060101 | 6' Positive Pressure Isolator Only, No Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-6P3-G3-0 | 2060102 | 6' Positive Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-4N1-G3-0 | 2060103 | 4' Negative Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-4N2-G3-0 | 2060104 | 4' Negative Pressure Isolator Only, No Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-4N3-G3-0 | 2060105 | 4' Negative Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-6N1-G3-0 | 2060106 | 6' Negative Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-6N2-G3-0 | 2060107 | 6' Negative Pressure Isolator Only, No Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-6N3-G3-0 | 2060108 | 6' Negative Pressure Isolator Only, No Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-4P1-G3-S | 2060109 | 4' Positive Pressure Isolator With Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-4P2-G3-S | 2060110 | 4' Positive Pressure Isolator With Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-4P3-G3-S | 2060111 | 4' Positive Pressure Isolator With Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-6P1-G3-S | 2060112 | 6' Positive Pressure Isolator With Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-6P2-G3-S | 2060113 | 6' Positive Pressure Isolator With Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-6P3-G3-S | 2060114 | 6' Positive Pressure Isolator With Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-4N1-G3-S | 2060115 | 4' Negative Pressure Isolator With Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-4N2-G3-S | 2060116 | 4' Negative Pressure Isolator With Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-4N3-G3-S | 2060117 | 4' Negative Pressure Isolator With Sharps Provisions, 220-240 VAC, 60 Hz |
| HPI-6N1-G3-S | 2060118 | 6' Negative Pressure Isolator With Sharps Provisions, 220-240 VAC, 50 Hz |
| HPI-6N2-G3-S | 2060119 | 6' Negative Pressure Isolator With Sharps Provisions, 110-120 VAC, 60 Hz |
| HPI-6N3-G3-S | 2060120 | 6' Negative Pressure Isolator With Sharps Provisions, 220-240 VAC, 60 Hz |

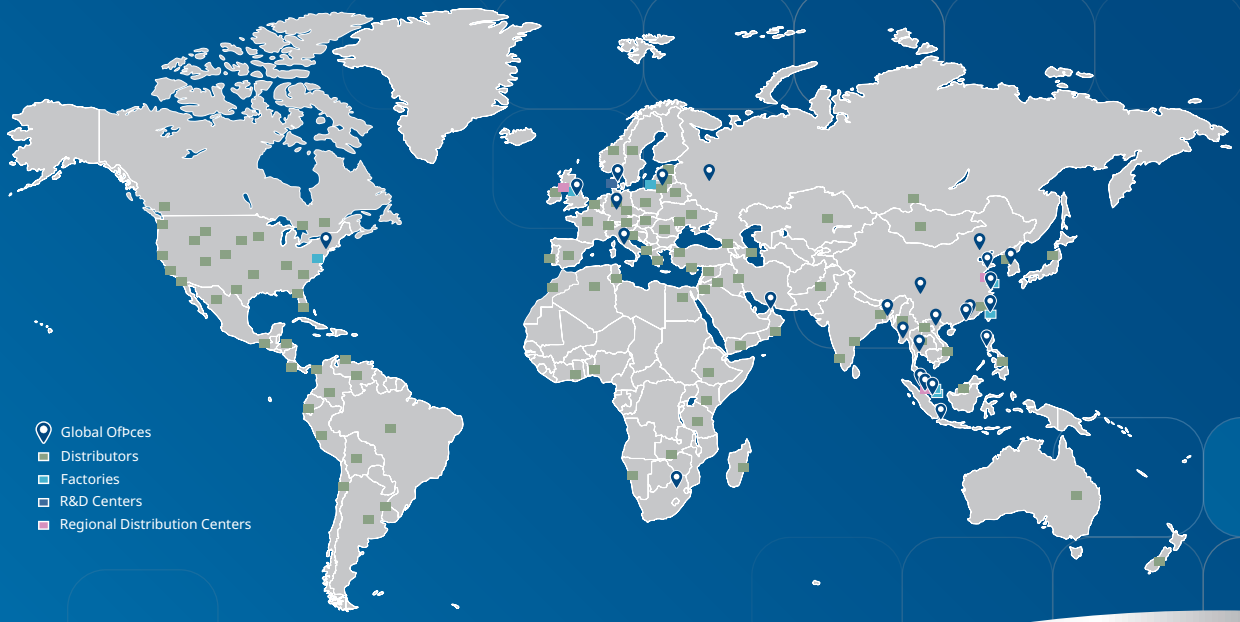
| Isoclean® Healthcare Platform Isolator - WITH Filter Below Work Zone | | |
|---|---|---|
| **Model Code** | **Item Code** | **Description** |
| HPI-2G8-PS0-0 | 2060121 | Positive Pressure Isolator Only, 2 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PS0-S | 2060122 | Positive Pressure Isolator, 2 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G9-PS0-0 | 2060123 | Positive Pressure Isolator Only, 2 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PS0-S | 2060124 | Positive Pressure Isolator, 2 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G8-PSL-0 | 2060125 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PSL-S | 2060126 | Positive Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PSR-0 | 2060127 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PSR-S | 2060128 | Positive Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PS2-0 | 2060129 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-PS2-S | 2060130 | Positive Pressure Isolator, 2 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |

| | | |
|---|---|---|
| HPI-2G9-PSL-0 | 2060131 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PSL-S | 2060132 | Positive Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PSR-0 | 2060133 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PSR-S | 2060134 | Positive Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PS2-0 | 2060135 | Positive Pressure Isolator Only, 2 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-PS2-S | 2060136 | Positive Pressure Isolator, 2 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G8-NS0-0 | 2060137 | Negative Pressure Isolator Only, 2 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NS0-S | 2060138 | Negative Pressure Isolator, 2 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G9-NS0-0 | 2060139 | Negative Pressure Isolator Only, 2 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NS0-S | 2060140 | Negative Pressure Isolator, 2 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G8-NSL-0 | 2060141 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NSL-S | 2060142 | Negative Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NSR-0 | 2060143 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NSR-S | 2060144 | Negative Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NS2-0 | 2060145 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NS2-S | 2060146 | Negative Pressure Isolator, 2 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G9-NSL-0 | 2060147 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NSL-S | 2060148 | Negative Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NSR-0 | 2060149 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NSR-S | 2060150 | Negative Pressure Isolator, 2 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NS2-0 | 2060151 | Negative Pressure Isolator Only, 2 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NS2-S | 2060152 | Negative Pressure Isolator, 2 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G8-NR0-0 | 2060153 | Negative Pressure Isolator Only, 2 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NR0-S | 2060154 | Negative Pressure Isolator, 2 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G9-NR0-0 | 2060155 | Negative Pressure Isolator Only, 2 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NR0-S | 2060156 | Negative Pressure Isolator, 2 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G8-NRL-0 | 2060157 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NRL-S | 2060158 | Negative Pressure Isolator, 2 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NRR-0 | 2060159 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NRR-S | 2060160 | Negative Pressure Isolator, 2 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NR2-0 | 2060161 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G8-NR2-S | 2060162 | Negative Pressure Isolator, 2 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-2G9-NRL-0 | 2060163 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NRL-S | 2060164 | Negative Pressure Isolator, 2 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NRR-0 | 2060165 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NRR-S | 2060166 | Negative Pressure Isolator, 2 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NR2-0 | 2060167 | Negative Pressure Isolator Only, 2 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-2G9-NR2-S | 2060168 | Negative Pressure Isolator, 2 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-PS0-0 | 2060169 | Positive Pressure Isolator Only, 3 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-PS0-S | 2060170 | Positive Pressure Isolator, 3 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-PS0-0 | 2060171 | Positive Pressure Isolator Only, 3 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PS0-S | 2060172 | Positive Pressure Isolator, 3 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-PSL-0 | 2060173 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-PSL-S | 2060174 | Positive Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-PSR-0 | 2060175 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-PSR-S | 2060176 | Positive Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-PS2-0 | 2060177 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |

| | | |
|---|---|---|
| HPI-3G8-PS2-S | 2060178 | Positive Pressure Isolator, 3 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-PSL-0 | 2060179 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PSL-S | 2060180 | Positive Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PSR-0 | 2060181 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PSR-S | 2060182 | Positive Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PS2-0 | 2060183 | Positive Pressure Isolator Only, 3 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-PS2-S | 2060184 | Positive Pressure Isolator, 3 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-NS0-0 | 2060185 | Negative Pressure Isolator Only, 3 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NS0-S | 2060186 | Negative Pressure Isolator, 3 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-NS0-0 | 2060187 | Negative Pressure Isolator Only, 3 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NS0-S | 2060188 | Negative Pressure Isolator, 3 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-NSL-0 | 2060189 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NSL-S | 2060190 | Negative Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NSR-0 | 2060191 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NSR-S | 2060192 | Negative Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NS2-0 | 2060193 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NS2-S | 2060194 | Negative Pressure Isolator, 3 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-NSL-0 | 2060195 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NSL-S | 2060196 | Negative Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NSR-0 | 2060197 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NSR-S | 2060198 | Negative Pressure Isolator, 3 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NS2-0 | 2060199 | Negative Pressure Isolator Only, 3 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NS2-S | 2060200 | Negative Pressure Isolator, 3 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-NR0-0 | 2060201 | Negative Pressure Isolator Only, 3 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NR0-S | 2060202 | Negative Pressure Isolator, 3 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-NR0-0 | 2060203 | Negative Pressure Isolator Only, 3 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NR0-S | 2060204 | Negative Pressure Isolator, 3 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G8-NRL-0 | 2060205 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NRL-S | 2060206 | Negative Pressure Isolator, 3 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NRR-0 | 2060207 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NRR-S | 2060208 | Negative Pressure Isolator, 3 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NR2-0 | 2060209 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G8-NR2-S | 2060210 | Negative Pressure Isolator, 3 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-3G9-NRL-0 | 2060211 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NRL-S | 2060212 | Negative Pressure Isolator, 3 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NRR-0 | 2060213 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NRR-S | 2060214 | Negative Pressure Isolator, 3 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NR2-0 | 2060215 | Negative Pressure Isolator Only, 3 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-3G9-NR2-S | 2060216 | Negative Pressure Isolator, 3 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-PS0-0 | 2060217 | Positive Pressure Isolator Only, 4 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240VAC, 50/60 Hz |
| HPI-4G8-PS0-S | 2060218 | Positive Pressure Isolator, 4 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G9-PS0-0 | 2060219 | Positive Pressure Isolator Only, 4 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-PS0-S | 2060220 | Positive Pressure Isolator, 4 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-PSL-0 | 2060221 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-PSL-S | 2060222 | Positive Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-PSR-0 | 2060223 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-PSR-S | 2060224 | Positive Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-PS2-0 | 2060225 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-PS2-S | 2060226 | Positive Pressure Isolator, 4 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G9-PSL-0 | 2060227 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-PSL-S | 2060228 | Positive Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-PSR-0 | 2060229 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |

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| HPI-4G9-PSR-S | 2060230 | Positive Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-PS2-0 | 2060231 | Positive Pressure Isolator Only, 4 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-PS2-S | 2060232 | Positive Pressure Isolator, 4 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-NS0-0 | 2060233 | Negative Pressure Isolator Only, 4 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NS0-S | 2060234 | Negative Pressure Isolator, 4 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G9-NS0-0 | 2060235 | Negative Pressure Isolator Only, 4 gloves, Single Pass, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NS0-S | 2060236 | Negative Pressure Isolator, 4 gloves, Single Pass, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-NSL-0 | 2060237 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NSL-S | 2060238 | Negative Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NSR-0 | 2060239 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NSR-S | 2060240 | Negative Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NS2-0 | 2060241 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NS2-S | 2060242 | Negative Pressure Isolator, 4 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G9-NSL-0 | 2060243 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Left), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NSL-S | 2060244 | Negative Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Left), With Sharps Provision, 110-120VAC, 50/60 Hz |
| HPI-4G9-NSR-0 | 2060245 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 1 Pass Chamber (Right), No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NSR-S | 2060246 | Negative Pressure Isolator, 4 gloves, Single Pass, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NS2-0 | 2060247 | Negative Pressure Isolator Only, 4 gloves, Single Pass, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NS2-S | 2060248 | Negative Pressure Isolator, 4 gloves, Single Pass, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-NR0-0 | 2060249 | Negative Pressure Isolator Only, 4 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NR0-S | 2060250 | Negative Pressure Isolator, 4 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G9-NR0-0 | 2060251 | Negative Pressure Isolator Only, 4 gloves, Recirculating, No Pass Chamber, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NR0-S | 2060252 | Negative Pressure Isolator, 4 gloves, Recirculating, No Pass Chamber, With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G8-NRL-0 | 2060253 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NRL-S | 2060254 | Negative Pressure Isolator, 4 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NRR-0 | 2060255 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 220-240 VAC, 50/60 Hz |
| HPI-4G8-NRR-S | 2060256 | Negative Pressure Isolator, 4 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 220-240VAC, 50/60Hz |
| HPI-4G8-NR2-0 | 2060257 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 220-240VAC, 50/60Hz |
| HPI-4G8-NR2-S | 2060258 | Negative Pressure Isolator, 4 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 220-240VAC, 50/60Hz |
| HPI-4G9-NRL-0 | 2060259 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 1 Pass Chamber (Left), No Sharps Provision, 110-120VAC, 50/60Hz |
| HPI-4G9-NRL-S | 2060260 | Negative Pressure Isolator, 4 gloves, Recirculating, 1 Pass Chamber (Left), With Sharps Provision, 110-120VAC, 50/60Hz |
| HPI-4G9-NRR-0 | 2060261 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 1 Pass Chamber (Right), No Sharps Provision, 110-120VAC, 50/60Hz |
| HPI-4G9-NRR-S | 2060262 | Negative Pressure Isolator, 4 gloves, Recirculating, 1 Pass Chamber (Right), With Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NR2-0 | 2060263 | Negative Pressure Isolator Only, 4 gloves, Recirculating, 2 Pass Chambers, No Sharps Provision, 110-120 VAC, 50/60 Hz |
| HPI-4G9-NR2-S | 2060264 | Negative Pressure Isolator, 4 gloves, Recirculating, 2 Pass Chambers, With Sharps Provision, 110-120 VAC, 50/60 Hz |

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