# **Laboratory Protection Clean Air Solutions**

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Your Haier Biomedical Partner





ves the right of final interpretation of this brochure, please contact us for any furth

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# Haier Biomedical Intelligent Protection of Life Science



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# **Certifications, Quality Control, Patented Technologies**

#### >> Certifications

| Safety certification to EN 61010                   |
|--|
| EMC certification EN 61326                         |
| Certified EN 12469 for Biological Safety Cabinets  |
| Certified CFDA YY-0569                             |
| ISO 13485:2016 and ISO 9001:2015 Certified Company |



# Strict QC Tests and Pre-delivery Inspections





>> Patented Technologies





LNS energy-saving mode (the fan will stop automatically once people leave for 15 minutes)

Intelligent constant air velocity

Pressure sensors monitoring service life of filters





















UV lamp one-touch protocol



Prevent airflow from overflowing

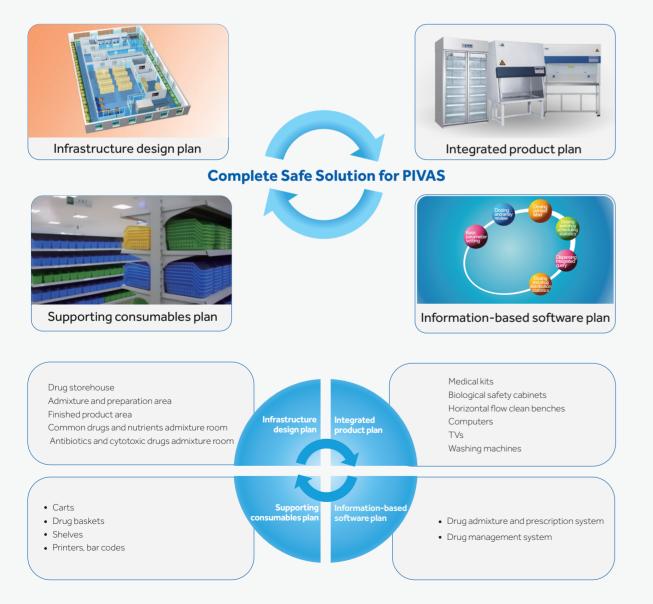
# Safe Admixture Solution for Medicine

#### >> Typical Application for PIVAS (Pharmacy Intravenous Admixture Service)

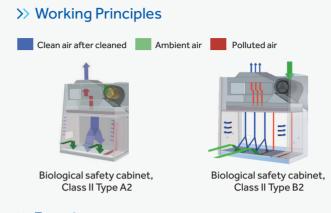
Haier Biomedical clean bench ensures a superior cleanliness environment while the technical specialists /medical staff perform the admixture of intravenous fluid for PIVAS.



#### >> Introduction to Safe System Solution for PIVAS



# Differences between Biological Safety Cabinet and Laminar Flow Cabinet



#### >> Functions

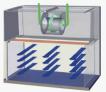
| Product Category                                | Airflow Circulation                 | Applications                                      | Air Supply Mode                           | Filter           | Operator<br>Protection | Sample<br>Protection | Environment<br>Protection |
|---|-------------------------------------|---|---|------------------|------------------------|----------------------|---------------------------|
| Biological safety<br>cabinet, Class II, Type A2 | 70% circulated,<br>30% discharged   | Operation of pathogenic bacteria, mold, yeast and | Negative pressure                         | High efficiency  |                        | ,                    | ,                         |
| Biological safety<br>cabinet,Class II, Type B2  | 100% discharged to<br>outdoor space | other hazardous samples                           | (Air pulled into cabinet)                 | riigireniciency  | V                      | V                    | V                         |
| Vertical laminar flow clean bench               | 100% discharged to<br>indoor space  | Operation of non-hazardous                        | Positive pressure<br>(Supply air to space | Llich officianay |                        |                      |                           |
| Horizontal laminar flow clean bench             | 100% discharged to<br>indoor space  | bacteria, PIVAS                                   | (Supply air to space High efficiency × )  | V                | ×                      |                      |                           |

# Model Selection Guide for Biological Safety Cabinet

|                    | Applications                                    | Class II, Type A2 | Class II, Type A2 +<br>Discharge Ducting | Class II, Type B2 |
|--------------------|---|-------------------|--|-------------------|
|                    | Sterilized culture medium preparation           | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Non-biohazard culture medium preparation        | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Culture   | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Non-biohazard tissue culture                    | √                 | $\checkmark$                             | $\checkmark$      |
| Biotechnology      | Tissue culture                                  | √                 | $\checkmark$                             | $\checkmark$      |
| 55                 | Plant tissue culture                            | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Blood composition analysis                      | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Human tissue research                           | √                 | $\checkmark$                             | $\checkmark$      |
|                    | PCR   | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Sterilized culture medium preparation           | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | Non-biohazard culture medium preparation        | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | Culture   | √                 | $\checkmark$                             | $\checkmark$      |
|                    | Odorous substance culture                       |                   | $\checkmark$                             | $\checkmark$      |
|                    | Non-biohazard culture                           | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
| licroorganism      | Isolated clinical specimen                      | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
| licroorganism      | Blood analysis                                  | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | QA/QC   | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | Non-volatile toxic substance staining           | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | Trace-volatile toxic substance staining         |                   | $\checkmark$                             | $\checkmark$      |
|                    | Non-volatile substance radioisotope labelling   | $\checkmark$      | $\checkmark$                             | $\checkmark$      |
|                    | Trace-volatile substance radioisotope labelling |                   | $\checkmark$                             | $\checkmark$      |
| 1edicine           | Anticancer drug preparation                     |                   | $\checkmark$                             | $\checkmark$      |
|                    | Trace-volatile substance preparation            |                   | $\checkmark$                             | $\checkmark$      |
| Routine Research   | Cell/tissue fixation/staining                   |                   | $\checkmark$                             | $\checkmark$      |
| ioutine nesedi (II | Toxic powder/suspended solids                   | √                 | $\checkmark$                             | $\checkmark$      |



Vertical laminar flow clean bench



Horizontal laminar flow clean bench

# **NSF Series Biological Safety Cabinet**

# Scope of Application

Professional air purifcation equipment suitable for pharmaceuticals, medical and health industries, scientifc research laboratories of universities and colleges as well as other related fields.



# **Product Advantages**



Multiple Voltage Options, Suitable for Many Countries and Regions Full voltage coverage (100-230V 50/60Hz), suitable for a wide range of countries and regions.

# .... \_\_\_\_\_

#### Microprocessor Control System

- Intuitive and informative interactive digital LCD display.
- the microprocessor system to maintain the constant air speed of the safety cabinet.
- filter remaining service life.



#### Ultra-low Noise, Uniform Airflow

Designed with Dual DC centrifugal fans, combined with an innovative air distribution system, with lower noise, and more uniform air flow.



#### Superior Filter, Multiple Protection

- exhaust flow.
- Perfect air distribution design, no turbulence in the working area.
- Sound and light alarm function for abnormal parameters.



### One-piece Welded Cabinet Structure, Leak Proof

Prevention of leakage performance of dangerous factors conforms to NSF specification.

• The hot-ball anemometer monitors the downflow and inflow air speed of the safety cabinet in real time and compares it with the standard air speed. The rotating speed of the fan is adjusted through

• Real-time display of operational information and parameters including downflow air velocity, flow rate, temperature, humidity, positive pressure, negative pressure, fan cumulative running time and

• One button UV lamp timer function, allows users to set 0 to 24 hours of automatic on/off time.

• ULPA is made of moisture-proof and flame-retardant glass fiber filter paper which can intercept 99.9995% solid particles with a diameter of 0.12 µm to ensure high cleanliness of air supply flow and

# **NSF Series Biological Safety Cabinet**

#### Specifications

|               | Model                             |       | HR900-IIA2-N   | HR1200-IIA2-N  | HR1500-IIA2-N  | HR1800-IIA2-N  |
|---------------|-----------------------------------|-------|--|--|--|--|
|               | Power Supply(V/Hz)                |       | 100~230/50/60  | 100~230/50/60  | 100~230/50/60  | 100~230/50/60  |
|               | Power (VA)                        |       | 1300   | 1300   | 1400   | 1400   |
|               | Power of Blower (W)               |       | DC 190W 112W   | DC 120W 112W   | DC 190W 112W   | DC 120W 112W   |
|               | Airflow Circulation               |       | 70% Downflow, 30%<br>Exhaust   | 70% Downflow, 30%<br>Exhaust   | 70% Downflow, 30%<br>Exhaust   | 70% Downflow, 30%<br>Exhaust   |
| General       | Main Filter Typical Efficiency    |       | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   |
| Specification | Exhaust Filter Typical Efficiency |       | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   | ULPA,<br>U15,99.9995%@0.12um   |
|               | Filter's Brand                    |       | AAF  | AAF  | AAF  | AAF  |
|               | Downflow Velocity (m/s)           |       | 0.35   | 0.35   | 0.35   | 0.35   |
|               | Inflow Velocity (m/s)             |       | 0.53   | 0.53   | 0.53   | 0.53   |
|               | Lighting Intensity (Lux)          |       | 946  | 1323   | TBD  | 1292   |
|               | Sound Level (dB(A))               |       | 67   | 64   | TBD  | 67   |
|               |                                   | kg    | 225/280  | 275/335  | 325/376  | 375/460  |
|               | Net/Gross Weight                  | lbs   | 496/584  | 617/750  | 716.5/804.7  | 827/1014   |
|               |                                   | mm    | 930*600*650  | 1230*600*650   | 1530*600*650   | 1830*600*650   |
|               | Internal Dimensions (W*D*H)       | in    | 36.6*23.6*25.6   | 48.4*23.6*25.6   | 60.2*23.6*25.6   | 72.0*23.6*25.6   |
|               |                                   | mm    | 1040*850(790)*2160   | 1340*850(790)*2160   | 1640*850(790)*2160   | 1940*850(790)*2160   |
|               | External Dimensions (W*D*H)       | in    | 40.9*33.5(31.1)*85   | 52.8*33.5(31.1)*85   | 64.6*33.5(31.1)*85   | 76.4*33.5(31.1)*85   |
|               | (Width without Armrest)           | mm    | 1105*935*1720  | 1435*945*1700  | 1705*940*1720  | 2038*945*1700  |
| Dimensions    | Packing Dimensions (W*D*H)        | in    | 43.5*36.8*67.7   | 56.5*37.2*66.9   | 67.1*37.0*67.7   | 80.2*37.2*66.9   |
|               | Support Stand (mm)                |       | 680mm (standard),<br>680-900mm adjustable<br>height (optional)       |
|               | Sash Opening (mm)                 |       | 200 (Max 460)  | 200 (Max 460)  | 200 (Max 460)  | 200 (Max 460)  |
|               | Container Load (20'/40'/40'H)     |       | 12/24/24   | 8/16/16  | 6/12/12  | 6/12/12  |
|               | Alarm                             |       | Sound and Flash  | Sound and Flash  | Sound and Flash  | Sound and Flash  |
|               | Closing Fan Alarm After Door Op   | ening | Y  | Y  | Y  | Y  |
|               | Door Ajar                         |       | Y  | Y  | Y  | Y  |
| Alarms        | Abnormal Inflow                   |       | Y  | Y  | Y  | Y  |
| Functions     | Abnormal Downflow                 |       | Y  | Y  | Y  | Y  |
|               | Door Open More than Limit         |       | Y  | Y  | Y  | Y  |
|               | Filter Clogging                   |       | Y  | Y  | Y  | Y  |
|               | Filter Damage                     |       | Y  | Y  | Y  | Y  |
|               | Filter Lifetime Lack              |       | Y  | Y  | Y  | Y  |
|               | UV Light Lifetime Lack            |       | Y  | Y  | Y  | Y  |
|               | UV Lamp                           |       | Y  | Y  | Y  | Y  |
|               | Socket                            |       | 2 sockets (optional GFCI socket)                                     | 2 sockets (optional GFCI<br>socket)                                  | 2 sockets (optional GFCI<br>socket)                                  | 2 sockets (optional GFCI<br>socket)                                  |
|               | Valve Port                        |       | Optional   | Optional   | Optional   | Optional   |
|               | Side Wall Service Taps            |       | Optional gas tap, vaccum<br>tap, compressed air tap<br>and water tap | Optional gas tap, vaccum<br>tap, compressed air tap<br>and water tap | Optional gas tap, vaccum<br>tap, compressed air tap<br>and water tap | Optional gas tap, vaccum<br>tap, compressed air tap<br>and water tap |
| Accessories   | Antimicrobial Coating             |       | Optional   | Optional   | Optional   | Optional   |
| Accessories   | 316SS Work Surface                |       | Optional   | Optional   | Optional   | Optional   |
|               | Work Surface                      |       | One-piece  | One-piece  | One-piece  | One-piece  |
|               | Touch Screen                      |       | Optional   | Optional   | Optional   | Optional   |
|               | Motorized Window                  |       | N  | Ν  | N  | Ν  |
|               | Foot Switch                       |       | N  | Ν  | Ν  | Ν  |
|               | Armrest                           |       | Y  | Y  | Y  | Y  |
|               | Exhaust Duct Connection Kits      |       | Optional   | Optional   | Optional   | Optional   |
| Others        | Certification                     |       | UL, NSF  | UL, NSF  | UL, NSF  | UL, NSF  |

**Smart IoT Series Biological Safety Cabinet** 

# Scope of Application

The X series of standard Class II microbiological safety cabinets are suitable for basic cell biology, microbiology, biomedicine, biosafety laboratories and other laboratories.



# **Smart IoT Series Biological Safety Cabinet**

### Product Advantages

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#### Microprocessor Control System



- Intuitive and informative interactive touch screen
- Real-time display of operational information and parameters including downflow air velocity, flow rate, temperature, humidity, positive pressure, negative pressure, fan cumulative running time and filter remaining service life

#### **Electronic Front Sash (optional)**

With push button simplicity the front window automatically opens to the correct aperture mandated by regional regulation to help ensure proper working conditions

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#### **Dual Cameras (optional)**

As an option, two surveillance cameras can monitor and record the conditions at each side of the working area. The camera is positioned to avoid any splashback within the working area, minimizing cleaning required

#### Intelligent IoT Module (optional)

An IoT module is an option available to enable users to simply manage the biosafety cabinets, any time anywhere, using our app. The system monitors the cabinet in real-time and alerts in the event of any abnormal alarms. Users can view operational parameters, operation performance curves, event and alarm records as well as other useful information



#### Ultra-low Noise, Uniform Airflow

Designed with dual DC fans, for up to 50% energy savings vs AC motor, meeting the low-noise, energy-saving and high-reliability requirements



#### **One-touch UV Lamp Operation**

One-button UV lamp timer, learns and retains users' UV lamp usage habits for convenient one-key start-up of the UV lamp timing function

#### Foot Switch (optional)



The foot switch will open or close the front sash to allow users to access samples without direct contact with the sash handle

#### Easy to Clean



The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection

#### Interlocking Design to Ensure Maximum ⋳ Safety and Reliability

UV lamp, front sash, fan and interior light operation are interlocked together to protect against harmful UV rays and to prevent leakage of microorganisms

#### **PIR Detection** PIR

In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter

|               | Model                                |     | HR1200-IIA2-X  | HR1500-IIA2-X  | HR1800-IIA2-X  |
|---------------|--------------------------------------|-----|--|--|--|
|               | Power Supply(V/Hz)                   |     | 220~240 50/60  | 220~240 50/60  | 220~240 50/60  |
|               | Power (VA)                           |     | 1600   | 1670   | 1850   |
|               | Power of Blower (W)                  |     | DC 120, DC 112   | DC 190, DC 112   | DC 120, DC 112   |
|               | Airflow Circulation                  |     | 70% Downflow,30% Exhaust   | 70% Downflow, 30% Exhaust  | 70% Downflow,30% Exhaust   |
|               | Main Filter Typical Efficiency       |     | ULPA, U15,99.9995%@0.12um  | ULPA, U15,99.9995%@0.12um  | ULPA, U15,99.9995%@0.12un  |
|               | Exhaust Filter Typical Efficiency    |     | ULPA, U15,99.9995%@0.12um  | ULPA, U15,99.9995%@0.12um  | ULPA, U15,99.9995%@0.12un  |
| General       | Exhaust Filter                       |     | Single   | Single   | Single   |
| Specification | Filter's Brand                       |     | AAF  | AAF  | AAF  |
|               | Downflow Velocity (m/s)              |     | 0.30   | 0.30   | 0.30   |
|               | Inflow Velocity (m/s)                |     | 0.45   | 0.45   | 0.45   |
|               | Lighting Intensity (Lux)             |     | 1317   | 1396   | 1133   |
|               | Sound Level (dB(A))                  |     | 59.3   | 61   | 63.5   |
|               |                                      | kg  | 280/340  | 320/400  | 380/465  |
|               | Net/Gross Weight                     | lbs | 617/750  | 705/882  | 838/1025   |
|               |                                      | mm  | 1230*600*655   | 1530*600*655   | 1830*600*655   |
|               | Internal Dimensions (W*D*H)          | in  | 48.4*23.6*25.8   | 60.2*23.6*25.8   | 72.0*23.6*25.8   |
|               | External Dimensions (W*D*H)          | mm  | 1336*845(790)*2120   | 1636*845(790)*2120   | 1936*845(790)*2120   |
| Dimensions    | (Width without Armrest)              | in  | 52.6*33.3(31.1)*83.5   | 64.4*33.3(31.1)*83.5   | 76.2*33.3(31.1)*83.5   |
|               | Packing Dimensions (W/*D*L)          | mm  | 1435*945*1700  | 1720*945*1700  | 2038*945*1700  |
|               | Packing Dimensions (W*D*H)           |     | 56.5*37.2*66.9   | 67.7*37.2*66.9   | 80.2*37.2*66.9   |
|               | Support Stand (mm)                   |     | 680-900mm adjustable height<br>(standard)                            | 680-900mm adjustable height<br>(standard)                            | 680-900mm adjustable height<br>(standard)                            |
|               | Sash Opening (mm)                    |     | 200 (Max 480)  | 200 (Max 480)  | 200 (Max 480)  |
|               | Container Load (20'/40'/40'H)        |     | 8/16/16  | 6/12/12  | 6/12/12  |
|               | Alarm                                |     | Sound and Flash  | Sound and Flash  | Sound and Flash  |
|               | Closing Fan Alarm After Door Opening |     | Y  | Y  | Y  |
|               | Door Ajar                            |     | Y  | Y  | Y  |
|               | Abnormal Inflow                      |     | Y  | Y  | Y  |
| Alarms        | Abnormal Downflow                    |     | Y  | Y  | Y  |
| Functions     | Door Open More than Limit            |     | Y  | Y  | Y  |
|               | Filter Clogging                      |     | Y  | Y  | Y  |
|               | Filter Damage                        |     | Y  | Y  | Y  |
|               | Filter Lifetime Lack                 |     | Y  | Y  | Y  |
|               | UV Light Lifetime Lack               |     | Y  | Y  | Y  |
|               | UV Lamp                              |     | Y  | Y  | Y  |
|               | Socket                               |     | 2 sockets  | 2 sockets  | 2 sockets  |
|               | Valve Port                           |     | Optional   | Optional   | Optional   |
|               | Side Wall Service Taps               |     | Optional gas tap, vaccum tap,<br>compressed air tap and water<br>tap | Optional gas tap, vaccum tap,<br>compressed air tap and water<br>tap | Optional gas tap, vaccum tap,<br>compressed air tap and water<br>tap |
|               | Antimicrobial Coating                |     | Optional   | Optional   | Optional   |
|               | 316SS Work Surface                   |     | Optional   | Optional   | Optional   |
| Accessories   | Work Surface                         |     | One-piece  | One-piece  | One-piece  |
|               | Touch Screen                         |     | Y  | Y  | Y  |
|               |                                      |     |  |  | · · · · · · · · · · · · · · · · · · ·                                |
|               | Motorized Window                     |     | Optional   | Optional   | Optional   |
|               | Foot Switch                          |     | Optional   | Optional   | Optional   |
|               | Armrest                              |     | Y  | Y  | Y  |
|               | Exhaust Duct Connection Kits         |     | Optional   | Optional   | Optional   |
| Others        | Certification                        |     | CE, TUV  | CE, TUV  | CE, TUV  |



# Specifications

# **Biological Safety Cabinet (Single/Double Exhaust Filter)**

# Scope of Application

Suitable for microbiology, biomedicine, biosafety laboratories and other laboratories. It offers three levels of protection-operator, product and environment



# Product Advantages 🛚



#### **Ultra-efficient Filtration**

High efficiency moisture proof and flame-retarded filter achieving a retention efficiency of 99.9995% for 0.12 micron solid particle system



#### Side Glass Windows

Tempered glass side walls increase visibility and prevents the operator from experiencing a "boxed-in" feeling

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|          |

#### Ergonomic Design

• A comfortable platform-type armrest can reduce hand and arm fatigue

• 10-degree angle inclination design, in accordance with ergonomic principles for more comfortable operation

With height adjustable stand, users can adjust the height of the work bench to requirements



#### Lower Noise and Airflow Uniformity

DC&EC fans operate with lower noise and deliver excellent air flow uniformity

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# UV Lamp

Patented one-button UV lamp technology allows users to automatically activate or deactivate based on usage habits or at specific sterilization intervals to minimise waiting time



#### Intelligent Constant Air Velocity System

Designed with intelligent constant air speed technology, which can ensure that the working area could have its downflow and inflow velocities in line with the standard requirements



#### **Multiple Alarm Functions**

Audible and visual alarm functions: filter and UV end-of-life alerts, fan turned-off after door opening alert and door open alarm



#### Easy to Clean

The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection



#### Patented IP-44 Rated Socket with Timer

The sockets can be programmed to supply power at a specified time to meet the users' experiment schedules



#### **PIR Detection**

In intelligent mode, the PIR sensor will detect when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter

# Biological Safety Cabinet (Single/Double Exhaust Filter)

# Specifications

|               | Model                                |          | HR900-IIA2-S   | HR1200-IIA2-S                                       | HR900-IIA2-D  | HR1200-IIA2-D                                       |
|---------------|--------------------------------------|----------|--|---|---|---|
|               | Power Supply(V/Hz)                   |          | 220-240/50/60  | 220-240/50/60                                       | 220-240/50/60                                       | 220-240/50/60                                       |
|               | Power (VA)                           |          | 1500   | 1600  | 1500  | 1600  |
|               | Power of Blower (W)                  |          | DC 120W EC170W   | DC 120, DC 112                                      | DC 120W EC170W                                      | DC 190, DC 170                                      |
|               | Airflow Circulation                  |          | 70% Downflow,30% Exhaust   | 70% Downflow,30% Exhaust                            | 70% Downflow,30% Exhaust                            | 70% Downflow,30% Exhau                              |
|               | Main Filter Typical Efficiency       |          | ULPA,<br>U15,99.9995%@0.12um   | HEPA,<br>H14,99.995%@0.3um                          | ULPA,<br>U15,99.9995%@0.12um                        | ULPA,<br>U15,99.9995%@0.12um                        |
| General       | Exhaust Filter Typical Efficiency    |          | ULPA,<br>U15,99.9995%@0.12um   | HEPA,<br>H14,99.995%@0.3um                          | ULPA×2,<br>U15,99.9995%@0.12um                      | HEPA×2,<br>H14,99.995%@0.3um                        |
| Specification | Exhaust Filter                       |          | Single   | Single  | Dual  | Dual  |
|               | Filter's Brand                       |          | AAF  | AAF   | AAF   | AAF   |
|               | Downflow Velocity (m/s)              |          | 0.30   | 0.30  | 0.30  | 0.30  |
|               | Inflow Velocity (m/s)                |          | 0.45   | 0.45  | 0.45  | 0.45  |
|               | Lighting Intensity (Lux)             |          | ≥1300  | ≥1000   | ≥1300   | ≥1000   |
|               | Sound Level (dB(A))                  |          | 57.1   | 60  | 59.7  | 60  |
|               | Nat/Crass Waight                     | kg       | 290/320  | 320/339   | 290/320   | 320/339   |
|               | Net/Gross Weight                     | lbs      | 639/705  | 705.5/747.4   | 639/705   | 705.5/747.4   |
|               |                                      | mm       | 936*620*635  | 1310*620*635  | 936*620*635   | 1310*620*635  |
|               | Internal Dimensions (W*D*H)          | in       | 36.9*24.4*25   | 51.6*24.4*25  | 36.9*24.4*25  | 51.6*24.4*25  |
|               | External Dimensions (W*D*H)          | mm       | 1002*856(796)*1485   | 1380*856(796)*2164                                  | 1002*856(796)*1485                                  | 1380*856(796)*1485                                  |
|               | (Width without Armrest)              | in       | 39.5*33.7(31.3)*58.5   | 54.3*33.7(31.3)*85.2                                | 39.5*33.7(31.3)*58.5                                | 54.3*33.7(31.3)*58.5                                |
| Dimensions    |                                      | mm       | 1185*925*1720  | 1475*935*1720                                       | 1105*932*1730                                       | 1475*935*1720                                       |
|               | Packing Dimensions (W*D*H)           | in       | 46.7*36.4*67.7   | 58.1*36.8*67.7                                      | 43.5*36.7*68.1                                      | 58.1*36.8*67.7                                      |
|               | Support Stand (mm)                   |          | No, 680-900mm<br>adjustable height (optional)                        | 680-900mm<br>adjustable height (standard)           | No, 680-900mm<br>adjustable height (optional)       | No, 680-900mm<br>adjustable height (optiona         |
|               | Sash Opening (mm)                    |          | 200 (Max 490)  | 200 (Max 490)                                       | 200 (Max 490)                                       | 200 (Max 490)                                       |
|               | Container Load (20'/40'/40'H)        |          | 11/21/21   | 8/16/16   | 11/21/21  | 8/16/16   |
|               | Alarm                                |          | Sound and Flash  | Sound and Flash                                     | Sound and Flash                                     | Sound and Flash                                     |
|               | Closing Fan Alarm After Door Opening |          | Y  | Y   | Y   | Y   |
|               | Door Ajar Alarm                      | .cr.n.rg | Y  | Ŷ   | Ý   | Y   |
|               | Abnormal Inflow Alarm                |          | Y  | Y   | Ŷ   | Y   |
| Alarms        | Abnormal Downflow Alarm              |          | Y  | Ŷ   | Y   | Y   |
| Functions     | Door Open More than Limit Alarm      |          | Y  | Y   | Y   | Y   |
|               | Filter Clogging Alarm                |          | Ý  | Ý   | Ý   | Y   |
|               | Filter Damage Alarm                  |          | Y  | Y   | Y   | Y   |
|               | Filter Lifetime Lack Alarm           |          | Y  | Y   | Y   | Y   |
|               | UV Light Lifetime Lack Alarm         |          | Y  | Y   | Y   | Y   |
|               | UV Lamp                              |          | Y  | Y   | Y   | Y   |
|               | Socket                               |          | 2 sockets  | 2 sockets   | 2 sockets   | 2 sockets   |
|               | Valve Port                           |          | Optional   | Optional  | Optional  | Optional  |
|               | Side Wall Service Taps               |          | Optional gas tap, vaccum<br>tap, compressed air tap<br>and water tap | Optional gas tap, vaccum<br>tap, compressed air tap | Optional gas tap, vaccum<br>tap, compressed air tap | Optional gas tap, vaccun<br>tap, compressed air tap |
|               | Antimicrobial Coating                |          | Optional   | Optional  | Optional  | Optional  |
| Accessories   | 316SS Work Surface                   |          | Optional   | Optional  | Optional  | Optional  |
|               | Work Surface                         |          | Three-piece  | Four-piece  | Three-piece   | Three-piece   |
|               | Touch Screen                         |          | N  | N   | N   | N   |
|               | Motorized Window                     |          | Optional   | Optional  | Optional  | Optional  |
|               |                                      |          | Optional   | Optional  | Optional  | Optional  |
|               | Foot Switch<br>Armrest               |          | Y  | Y   | Y   | Y   |
|               | Exhaust Duct Connection Kits         |          | Optional   | Optional  | Optional  | Optional  |
|               | Exhaust Duct Connection Alls         |          | Optional   | optionui  | optional  | Optionui  |

# **Biological Safety Cabinet**

# Scope of Application

This Class II microbiological safety cabinet is designed to protect the operator, laboratory environment and samples from being exposed to the infective aerosol produced from samples with bacteria strains, diagnostic materials, and other infective substances. It provides the operator with comfortable and safer working conditions. It is widely used in medical health, disease prevention, food safety, biological pharmacy and environment monitoring.



# **Biological Safety Cabinet**

# Product Advantages



#### V-shaped Air Inlet

The V-shaped air inlet can prevent the samples or arms of operator from blocking the air flow.

The work surface can be easily lifted using the handles for cleaning purposes



#### **One-touch UV Lamp Operation**

UV lamp records and remembers users' setting and habits and can be preset with a startup delay with one-key operation for ease and convenience



# **Energy Conservation**

• PIR detection In intelligent mode, the PIR sensor will detect

when the operating area has been clear of personnel for more than 15 minutes and automatically switch to LNS green-saving mode to reduce the noise level, save energy and prolong the service life of filter



#### Ergonomic

#### • 10° inclination design of cabinet body

The front operation interface has an ergonomic design of 10 ° inclination for ensuring more comfortable operation

#### Stainless steel armrest

A comfortable platform-type armrest can reduce hand and arm fatigue

#### **Easy to Clean**

The armrest can be removed and the unique drop-down front sash can be removed in seconds to enable easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection



# Constant airflow velocity

The hot-bulb airflow velocity transducer performs real-time monitoring of the air velocity of the working area, compares it with the standard air velocity, and keeps a constant air velocity in the cabinet by regulating the fan speed with a microcomputer system

### **IP 44 Rated Power Sockets with Timer**

The sockets can be programmed to supply power at a specified time to meet the users' demands for timing of experiments

# Safe



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### Abnormal operation condition alarm

Audible and visual alarms in form of voice or text will be present when air turbulence level exceeds 20% and door height (high or low) or work area temperature exceeds limits

#### Patented technology: filter end-of-life reminder

Pressure transducer monitors the resistance variation of filter to determine the remaining life of filter and will remind the user by warning when the remaining life is below 10%

#### Patented technology: UV lamp end-of-life reminder

The microcomputer will add up the service time of UV lamp, and will remind by warning the user to replace the UV lamp when its remaining life is less than 10%



Offers a Broad Range of Sizes to Fit any Available Laboratory Space

# **Mini Biological Safety Cabinet**

# Scope of Application

Small size microbiological safety cabinet for single person operations and small working spaces, suitable for testing stations within warehouse, airports and mobile laboratories.



**HR700-IIA2** 

# Mini Biological Safety Cabinet

# Product Advantages

| _ |   |
|---|---|
| — | 6 |

#### Safe and Reliable

Adopts AAF filters, class 1 cleanliness to provide maximum protection for people, environment and samples



# LCD Display

LCD screen displays various parameters and service life of accessories in real time, and the operational condition of the equipment is clear at a glance



#### **One-click Operation**

UV lamp one-click reservation allows users to set 0 min to 24 hours of automatic on/off time and sterilization interval, reducing the waiting time



#### Two Waterproof Sockets

Sockets include timing technology to allow users to program socket on/off times



#### Interlocking Function

| The product features an interlocking function |
|---|
| between UV disinfection, fluorescent lamp,    |
| front sash and fan                            |





Audible and visual alarm functions: hardware failure alarm, operation parameter overrun alarm, filter and UV lamp life warning

#### **Uniform Airflow**

The EBM fan, combined with Haier Biomedical's professional air distribution design, provides lower noise operation and a uniform air flow



Complies with EN12469



# Specifications

|              | Model   |          | HR700-IIA2  | HR900-IIA2   | HR1200-IIA2  | HR1500-IIA2   |
|--------------|---|----------|---|--|--|---|
|              | Power Supply(V/Hz)                            |          | 220-240/50  | 220-240/50   | 220-240/50   | 220-240/50  |
|              | Power (VA)                                    |          | 1200  | 1500   | 1500   | 1900  |
|              | Power of Blower (W)                           |          | AC 210  | AC L=330,M=465,H=735   | AC L=330,M=465,H=735                                     | AC 650  |
|              | Airflow Circulation                           |          | 70% Downflow,30% Exhaust  | 70% Downflow,30% Exhaust   | 70% Downflow,30% Exhaust                                 | 70% Downflow,30% Exhaust  |
|              | Main Filter Typical Efficiency                |          | HEPA,H14,99.995%@0.3um  | ULPA,U15,99.9995%@0.12um   | ULPA,U15,99.9995%@0.12um                                 | ULPA,U15,99.9995%@0.12ur  |
| General      | Exhaust Filter Typical Efficiency             |          | ULPA,U15,99.9995%@0.12um  | ULPA,U15,99.9995%@0.12um   | HEPA,H14,99.995%@0.3um                                   | HEPA,H14,99.995%@0.3um  |
| pecification | Exhaust Filter                                |          | Single  | Single   | Single   | Single  |
|              | Filter's Brand                                |          | AAF   | AAF  | AAF  | AAF   |
|              | Downflow Velocity (m/s)                       |          | 0.30  | 0.33   | 0.34   | 0.31  |
|              | Inflow Velocity (m/s)                         |          | 0.53  | 0.55   | 0.55   | 0.55  |
|              | Lighting Intensity (Lux)                      |          | ≥780  | ≥900   | ≥900   | ≥900  |
|              | Sound Level (dB(A))                           |          | <65   | 60   | 60   | 62  |
|              |   | kg       | 100/130   | 290/310  | 320/339  | 350/393   |
|              | Net/Gross Weight                              | lbs      | 220.4/286.52  | 639.3/683.4  | 705.5/747.4  | 771.6/866.4   |
|              |   | mm       | 600*550*540   | 920*620*650  | 1220*620*650   | 1520*620*650  |
|              | Internal Dimensions (W*D*H)                   | <u> </u> | 23.62*21.65*21.26   | 36.2*24.4*25.6   |  | 59.9*24.4*25.6  |
|              |   | in       | 700*720*1200  |  | 48.0*24.4*25.6   |   |
|              | External Dimensions (W*D*H)                   | mm       |   | 1080*845(790)*2160   | 1380*845(790)*2160                                       | 1680*845(790)*2160  |
| Dimensions   | s   | in       | 27.56*28.35*47.24<br>800*810*1385 (without stand)               | 42.5*33.3(31.1)*85.0   | 54.3*33.3(31.1)*85.0                                     | 66.1*33.5(31.1)*85.0  |
|              | Packing Dimonsions (W/*D*H)                   | mm       | 825*820*1495 (with stand)                                       | 1185*925*1720  | 1475*935*1720  | 1785*932*1720   |
|              | Packing Dimensions (W*D*H)                    |          | 31.5*31.9*54.5 (without stand) 32.5*32.3*58.9 (with stand)      | 46.7*36.4*67.7   | 58.1*36.8*67.7   | 70.3*36.7*67.7  |
|              | Support Stand (mm)                            |          | No,700mm (optional)   | 680-900mm  | 680-900mm  | 680-900mm   |
|              | Sash Opening (mm)                             |          | 200 (Max)   | adjustable height (standard)<br>200 (Max 490)  | adjustable height (standard)<br>200 (Max 490)            | adjustable height (standard<br>200 (Max 490)  |
|              | Container Load (20'/40'/40'H)                 |          | 14/28/28  | 11/21/21   | 8/16/16  | 6/12/12   |
|              | Alarm   |          | Sound and Flash   | Sound and Flash  | Sound and Flash  | Sound and Flash   |
|              | Closing Fan Alarm After Door Opening          |          | Y   | Y  | Y  | Y   |
|              | Door Ajar Alarm                               | -        | Y   | Y  | Y  | Y   |
|              | Abnormal Inflow Alarm                         |          | Y   | Y  | Y  | Y   |
| larms        | Abnormal Downflow Alarm                       |          | Y   | Y  | Y  | Y   |
| unctions     | Door Open More than Limit Alarr               | n        | Y   | Ý  | Y  | Y   |
|              | Filter Clogging Alarm                         |          | Y   | Y  | Y  | Y   |
|              | Filter Damage Alarm                           |          | Y   | Y  | Y  | Y   |
|              | Filter Lifetime Lack Alarm                    |          | Y   | Y  | Y  | Y   |
|              | UV Light Lifetime Lack Alarm                  |          | Y   | Y  | Y  | Y   |
|              |   |          | Y   | Y  | Y  |   |
|              | UV Lamp                                       |          | 2 sockets   |  |  | Y   |
|              | Socket  |          |   | 2 sockets  | 2 sockets<br>Standard with 2 valve port                  | 2 sockets   |
|              | Valve Port<br>Side Wall Service Taps          |          | Optional<br>Optional gas tap, vaccum<br>tap, compressed air tap | Standard with 2 valve port<br>Standard gas tap and vaccum<br>tap; optional compressed air<br>tap and water tap | Standard gas tap and vaccum tap; optional compressed air | Standard with 2 valve port<br>Standard gas tap and vaccun<br>tap; optional compressed air |
|              | Antimicrobial Coating                         |          | Optional  | Optional   | tap and water tap<br>Optional                            | tap and water tap<br>Optional   |
| ccessories   | 316SS Work Surface                            |          | Optional  | Optional   | Optional   | Optional  |
|              | Work Surface                                  |          | One-piece   | One-piece  | One-piece  | One-piece   |
|              | Touch Screen                                  |          |   |  | N  |   |
|              |   |          | N<br>Y  | N  |  | N<br>Ontional   |
|              | Electric Front Sash                           |          | -   | Optional   | Optional   | Optional  |
|              | Foot Switch                                   |          | Optional  | Optional   | Optional   | Optional  |
|              | Armrest                                       |          | N   | Y  | Y  | Y   |
|              | Exhaust Duct Connection Kits<br>Certification |          | N   | Optional   | Optional   | Optional  |

# Classic Series Biological Safety Cabinet (Type A2)

# Scope of Application

Professional partial air purification equipment, it is suitable for cell biology, microbiology, biomedicine, biosafety and other related laboratories.



# 🔨 Product Advantages 🛛



Patented air flow blocking technology is designed at the upper edge and both edges of front window to eliminate the exposure of microorganisms



The internal walls on three sides of operation area is constructed by a single plate, and the 12mm arc angle corner for optimal cleaning



Quality 304 stainless steel work surface without screws, no accumulation of contaminant



Audible and visual alarms for abnormal parameters



Digital LCD screen



Dismountable air in-flow plate, easy to clean and sterilize



UV lamp one-click reservation allows users to set 0 min to 24 hours of automatic on/off time and sterilization interval, reducing the waiting time



#### Professional

#### Digital display of operating parameters

Real-time digital display of down flow, inflow, exhaust volume, filter remaining life, UV lamp remaining life, negative pressure and positive pressure



Real-time display of key parameters: down-flow velocity, inflow velocity, airflow volume, static pressure, negative pressure, accumulative running time off an accumulative running time of UV lamp, and remaining life of filter



The volume of liquid tank is over 4L, designed with outlet valve for convenient cleaning and maintenance



### Safe

#### Abnormal operation condition alarm

Audible and visual alarms in form of voice or text will be present when air turbulence level exceeds 20% and door height (high or low)

#### • Filter end-of-life reminder

Pressure transducer monitors the resistance variation of filter to determine the remaining life of filter and reminds the user by warning when the remaining life is below 10%

#### • UV lamp end-of-life reminder

The microcomputer records service times of the UV lamp and will alert the user to replace the UV lamp when its remaining life is less than 10%

# • Interlocking feature to ensure high safety and reliability

Patented technology: UV lamp interlocking control

UV lamp, sash, fan and interior light operation are interlocked together to protect against harmful UV rays and to prevent leakage of microorganisms

# Classic Series Biological Safety Cabinet (Type A2)

# Specifications

|                   | Model                                |     | HR30-IIA2  | HR40-I   | IIA2   |  |
|-------------------|--------------------------------------|-----|--|--|--|--|
|                   | Power Supply(V/Hz)                   |     | 220-240/50/60  | 115/60   | 220-240/50/60  |  |
|                   | Power (VA)                           |     | 1300   | 1300   | 1300   |  |
|                   | Power of Blower (W)                  |     | AC 540/625   | AC 540/625   | AC 540/625   |  |
|                   | Airflow Circulation                  |     | 70% Downflow,30% Exhaust   | 70% Downflow, 30% Exhaust  | 70% Downflow, 30% Exhaust  |  |
|                   | Main Filter Typical Efficiency       |     | ULPA,U15,99.9995%@0.12um   | ULPA,U15,99.9995%@0.12um   | ULPA ,U15,99.9995%@0.12um  |  |
|                   | Exhaust Filter Typical Efficiency    |     | HEPA ,H14,99.995%@0.3um  | HEPA ,H14,99.995%@0.3um  | HEPA,H14,99.995%@0.3um   |  |
|                   | Exhaust Filter                       |     | Single   | Single   | Single   |  |
| General           | Filter's Brand                       |     | AirePlus   | AAF  | AAF  |  |
| pecification      | Downflow Velocity (m/s)              |     | 0.3  | 0.28   | 0.3  |  |
|                   |                                      |     | 0.53   | 0.55   | 0.53   |  |
|                   | Inflow Velocity (m/s)                |     | ≥1100  | ≥1200  | ≥1200  |  |
|                   | Lighting Intensity (Lux)             |     | 61   | 64   | 64   |  |
|                   | Sound Level (dB(A))                  |     | -  | Stand only   | Stand only   |  |
|                   | Bench or Stand Only                  |     | Stand only   | · · · · ·  |  |  |
|                   | Net/Gross Weight                     | kg  | 220/248  | 258/305  | 258/305  |  |
|                   |                                      | lbs | 485/546.7  | 568.8/672.4  | 568.8/672.4  |  |
|                   | Internal Dimensions (W*D*H)          | mm  | 900*610*680  | 1167*610*680   | 1167*610*680   |  |
|                   |                                      | in  | 35.4*24.0*26.8   | 45.9*24.0*26.8   | 45.9*24.0*26.8   |  |
|                   | External Dimensions (W*D*H)          | mm  | 1100*820*2200  | 1360*820*2200  | 1360*820*2200  |  |
| imensions         |                                      | in  | 43.3*32.3*86.6   | 53.5*32.3*86.6   | 53.5*32.3*86.6   |  |
|                   | Packing Dimensions (W*D*H)           | mm  | 1185*945*1750  | 1445*945*1720  | 1445*945*1720  |  |
|                   |                                      | in  | 46.7*37.2*68.9   | 56.9*37.2*67.7   | 56.9*37.2*67.7   |  |
|                   | Support Stand (mm)                   |     | 680mm (standard),<br>680-900mm adjustable height<br>(optional)                   | 680mm (standard),<br>680-900mm adjustable height<br>(optional)                   | 680mm (standard),<br>680-900mm adjustable height<br>(optional)                   |  |
|                   | Sash Opening (mm)                    |     | 190 (Max 490)  | 190 (Max 490)  | 190 (Max 490)  |  |
|                   | Container Load (20'/40'/40'H)        |     | 10/20/20   | 8/16/16  | 8/16/16  |  |
|                   | Alarm                                |     | Sound and Flash  | Sound and Flash  | Sound and Flash  |  |
|                   | Closing Fan Alarm After Door Opening |     | Y  | Y  | Y  |  |
|                   |                                      |     | Y  | Y  | Y  |  |
|                   | Door Ajar<br>Abnormal Inflow         |     | Y  | Y  | Y  |  |
|                   | Abnormal Downflow                    |     | Y  | Ŷ  | Y  |  |
| larms<br>unctions |                                      |     | Y  | Y  | Y  |  |
| lictions          | Door Open More than Limit            |     | Y  | Y  | Y  |  |
|                   | Filter Clogging                      |     | Y  | Y  | Y  |  |
|                   | Filter Damage                        |     | Y  | Y  | Y  |  |
|                   | Filter Lifetime Lack                 |     | Y<br>Y   |  | Y  |  |
|                   | UV Light Lifetime Lack               |     |  | Y  |  |  |
|                   | UV Lamp                              |     | Y  | Y  | Y  |  |
|                   | Socket                               |     | 1 Socket   | 1 Socket   | 1 Socket   |  |
|                   | Valve Port                           |     | Standard with 2 Valve Port   | Standard with 2 Valve Port   | Standard with 2 Valve Port   |  |
| Accessories       | Side Wall Service Taps               |     | Standard gas tap and vaccum<br>Tap; optional compressed air tap<br>and water tap | Standard gas tap and vaccum<br>Tap; optional compressed air<br>tap and water tap | Standard gas tap and vaccum<br>Tap; optional compressed air<br>tap and water tap |  |
|                   | Antimicrobial Coating                |     | Optional   | Optional   | Optional   |  |
|                   | 316SS Work Surface                   |     | Optional   | Optional   | Optional   |  |
|                   | Work Surface                         |     | One-piece  | One-piece  | One-piece  |  |
|                   | Touch Screen                         |     | Ν  | N  | Ν  |  |
|                   | Motorized Window                     |     | Ν  | Ν  | Ν  |  |
|                   | Foot Switch                          |     | Ν  | Ν  | Ν  |  |
|                   | Armrest                              |     | Y  | Y  | Y  |  |
|                   | Exhaust Duct Connection Kits         |     | Optional   | Optional   | Optional   |  |
| Others            | Certification                        |     | CE, TUV  | /  | CE, TUV  |  |

\*Haier Biomedical reserves the right to change products and specifications without prior notice

# Classic Series Biological Safety Cabinet (Type B2)

# Scope of Application

Professional partial air purification equipment, it is suitable for cell biology, microbiology, biomedicine, biosafety and other related laboratories.

# Product Advantages



100% exterior exhaust



Haier Biomedical exterior exhaust fan (optional)





4m corrosion-resistant corrugated hose (standard)



Interlocking between safety cabinet and exterior exhauster, enables remote control of exterior exhauster parameters with safety cabinet

# Classic Series Biological Safety Cabinet (Type B2)

# Specifications

|                          | Model                                |     | HR40-IIB2   |  |  |
|--------------------------|--------------------------------------|-----|---|--|--|
|                          | Power Supply(V/Hz)                   |     | 220-240/50/60   |  |  |
|                          | Power (VA)                           |     | 1700  |  |  |
|                          | Power of Blower (W)                  |     | AC 115  |  |  |
|                          | Airflow Circulation                  |     | 100% Exhaust  |  |  |
|                          | Main Filter Typical Efficiency       |     | ULPA,U15,99.9995%@0.12um  |  |  |
| C                        | Exhaust Filter Typical Efficiency    |     | HEPA,H14,99.995%@0.3um  |  |  |
| General<br>Specification | Exhaust Filter                       |     | Single  |  |  |
| opeemeation              | Filter's Brand                       |     | AAF   |  |  |
|                          | Downflow Velocity (m/s)              |     | 0.28  |  |  |
|                          | Inflow Velocity (m/s)                |     | 0.55  |  |  |
|                          | Lighting Intensity (Lux)             |     | ≥1200   |  |  |
|                          | Sound Level (dB(A))                  |     | 64  |  |  |
|                          | Bench or Stand Only                  |     | Stand only  |  |  |
|                          |                                      | kg  | 252/308   |  |  |
|                          | Net/Gross Weight                     | lbs | 555.6/679.0   |  |  |
|                          |                                      | mm  | 1167*610*680  |  |  |
|                          | Internal Dimensions (W*D*H)          | in  | 45.9*24.0*26.8  |  |  |
|                          |                                      | mm  | 1360*820*2330   |  |  |
| Dimensions               | External Dimensions (W*D*H)          | in  | 53.5*32.3*91.7  |  |  |
| Dimensions               |                                      | mm  | 1445*945*1930   |  |  |
|                          | Packing Dimensions (W*D*H)           | in  | 56.9*37.2*76.0  |  |  |
|                          | Support Stand (mm)                   |     | 680mm (standard), 680-900mm adjustable height (optional)                      |  |  |
|                          | Sash Opening (mm)                    |     | 190 (Max 490)   |  |  |
|                          | Container Load (20'/40'/40'H)        |     | 8/16/16   |  |  |
|                          | Alarm                                |     | Sound and Flash   |  |  |
|                          | Closing Fan Alarm After Door Opening |     | Y   |  |  |
|                          | Door Ajar                            |     | Y   |  |  |
|                          | Abnormal Inflow                      |     | Y   |  |  |
|                          | Abnormal Downflow                    |     | Y   |  |  |
| Alarms                   | Door Open More than Limit            |     | Y   |  |  |
| Functions                | Filter Clogging                      |     | Y   |  |  |
|                          | Filter Damage                        |     | Y   |  |  |
|                          | Filter Lifetime Lack                 |     | Y   |  |  |
|                          | UV Light Lifetime Lack               |     | Y   |  |  |
|                          | UV Lamp                              |     | Y   |  |  |
|                          | Socket                               |     | 1 Socket  |  |  |
|                          | Valve Port                           |     | Standard with 2 Valve Port  |  |  |
| Accessories              | Side Wall Service Taps               |     | Standard gas tap and vaccum tap: optional<br>compressed air tap and water tap |  |  |
|                          | Antimicrobial Coating                |     | Optional  |  |  |
|                          | 316SS Work Surface                   |     | Optional  |  |  |
|                          | Work Surface                         |     | One-piece   |  |  |
|                          | Touch Screen                         |     | N   |  |  |
|                          | Motorized Window                     |     | Ν   |  |  |
|                          | Foot Switch                          |     | Ν   |  |  |
|                          | Armrest                              |     | Y   |  |  |
|                          | Exhaust Duct Connection Kits         |     | Ν   |  |  |
| Others                   | Certification                        |     | CE, TUV   |  |  |

# **Animal Containment Workstation**

# Scope of Application

Applicable for laboratory animal operations (surgery, weighing, etc.) in experimental animal centers of scientific research institutions, hospitals, colleges and universities, or experimental animal research and development projects and breeding institutions.



\*Haier Biomedical reserves the right to change products and specifications without prior notice

HR1500-IIA2-DW

# **Animal Containment Workstation**

# Product Advantages



# Low Maintenance Costs

Experimental animal hair and debris are captured to eliminate the impact of hair debris and other debris on the service life of the fans and filters which ensures the cabinet is more durable



#### The Dual System Ensures Maximum Safety

Each independent-controlled down flow and inlet airflow system is designed with dual fans, which ensures the stable airflow in the cabinet even if the pre-filter is 50% blocked. In the case of either damage to either fan, the air supply and exhaust system ensure safe air and protection

### **Product Features**



#### Safety Interlock

Ultraviolet lamp, sash window, fans, and lamps are interlocked to eliminate hidden dangers of ultraviolet and microorganism leakage



#### **Real-time Status Display**

The digital screen displays in real time the flow rate of downflow and inflow airflow, the volume of discharged air, the temperature and humidity of the working area, the remaining service life of the filter, the UV lamp, the pressure in the negative pressure area, and positive pressure area. Users are alerted if abnormal operation is detected

# **Specifications**



#### Sectioned Pre-filter

The interior of the sectioned pre-filter is easy to clean, and the pre-filter with a rear-mounted work surface is designed in sections, meaning the filter is easy to disassembled and sterilized as needed



#### Stable Laminar Flow Offers Safety

The intelligent constant air speed design means that if abnormal air velocity is detected the fan adjust automatically to ensure the air speed stay within normal range



The work area in the cabinet is monitored by camera and the images are stored for future reference (optional)

#### **Electric Foot Switch**



When it is inconvenient to open the safety cabinet door with both hands, the electric front sash can be opened by foot switch (optional)

#### Model HR1500-IIA2-DW Power (W) 1400 0.3 Downflow Velocity (m/s) 0.53 Inflow Velocity (m/s) Lighting Intensity (Lux) ≥1100 350/400 Net/Gross Weight (kg) Interior Dimensions (W\*D\*H)(mm) 1530\*600\*653 Exterior Dimensions (W\*D\*H)(mm) 1636\*790\*2170 Packing Dimensions (W\*D\*H)(mm) 1700\*925\*1715

6/12/12 \*Haier Biomedical reserves the right to change products and specifications without prior notice

# Laminar Flow Cabinet



research laboratories of universities and colleges, photoelectric/microelectronics manufacturing and other fields







Moisture-proof and flame-retardant glass fiber high efficiency particulate air filters (HEPA), ensure a filtration efficiency of 99.99% or above for particles of 0.3um or above



The air cleanliness conforms to Class 5 of the IS014644.1 Standard, and is better than Class 100 cleanliness requirements



Built-in lighting prevents exposure to fluorescent lamp to avoid eye stain

Container Load (20'/40'/40'H)

# A professional localized air purification equipment suitable for pharmaceuticals, medical and health, scientific



With the industry's first pre-cleaning function: namely pre-cleaning the workspace before sample treatment so as to further improve the protection of samples



#### One-key operation, convenient and secure:

- With a timed UV lamp turn off function, it is adjustable between 0 and 99 minutes
- With the lighting lamp and UV lamp interlock function; the UV lamp can only be lit when the lighting lamp is off. The UV lamp is turned off immediately if the fluorescent lighting is turned on to prevent mis-operation

# **Laminar Flow Cabinet**



Specifications

|                          | Model                             |     | HCB-900V   | HCB-   | 1300V  | HCB-1600H  |  |
|--------------------------|-----------------------------------|-----|--|--|--|--|--|
|                          | Flow Type                         |     | Vertical   | Vertical   | Vertical   | Horizontal   |  |
|                          | Power Supply(V/Hz)                |     | 220/50   | 115/60   | 220/50   | 220/50/60  |  |
|                          | Power (W)                         |     | 1200   | 1200   | 1200   | 350  |  |
|                          | Vibration Amplitude (UM)          |     | 2  | 2  | 2  | 2  |  |
| General<br>Specification | Exhaust Filter Typical Efficiency |     | H13 HEPA,99.99%@0.3um  | H13 HEPA,99.99%@0.3um  | H13 HEPA,99.99%@0.3um  | H13 HEPA,99.99%@0.3um  |  |
| opeeneeree               | Average Velocity (M/S)            |     | 0.2-0.4  | 0.2-0.4  | 0.2-0.4  | 0.2-0.4  |  |
|                          | Lighting Intensity (Lux)          |     | ≥300   | ≥300   | ≥300   | ≥1000  |  |
|                          | Sound Level (dB(A))               |     | 60   | 60   | 60   | 61   |  |
|                          | Sash Opening(mm)                  |     | Max 310  | Max 310  | Max 310  | /  |  |
|                          | Net/Gross Weight                  | kg  | 115/145  | 145/171  | 145/171  | 165/214  |  |
|                          |                                   | lbs | 254/319  | 320/376  | 320/376  | 363.7/471  |  |
|                          |                                   | mm  | 900*530*520  | 1300*530*520   | 1300*530*520   | 1710*550*750   |  |
|                          | Internal Dimensions (W*D*H)       | in  | 35.4*20.9*20.5   | 51.2*20.9*20.5   | 51.2*20.9*20.5   | 67.3*21.7*29.6   |  |
|                          | External Dimesion (W*D*H)         | mm  | 970*630*1730   | 1370*630*1730  | 1370*630*1730  | 1780*790*1960  |  |
| Dimensions               |                                   | in  | 38.2*24.8*68.1   | 53.9*24.8*68.1   | 53.9*24.8*68.1   | 70.1*31.1*77.2   |  |
| 2                        | Packing Dimensions (W*D*H)        | mm  | 1100*750*1290  | 1510*770*1280  | 1510*770*1280  | 1875*940*1410  |  |
|                          |                                   | in  | 43.3*29.5*50.8   | 59.4*30.3*50.4   | 59.4*30.3*50.4   | 73.8*37.0*55.5   |  |
|                          | Support Stand(mm)                 |     | 755mm (standard)   | 755mm (standard)   | 755mm (standard)   | 765mm (standard)   |  |
|                          | Container Load (20'40'40'H)       |     | 15/33/33   | 10/22/22   | 10/22/22   | 6/12/12  |  |
|                          | UV Lamp                           |     | Y  | Y  | Y  | Y  |  |
|                          | Power Outlet Socket               |     | 2 Sockets  | 2 Sockets  | 2 Sockets  | /  |  |
|                          | Conversion Socket                 |     | Optional   | Optional   | Optional   | /  |  |
|                          | Cleanliness Classification        |     | ISO 14644.1 Class 5  |  |
|                          | Valve Port                        |     | Optional   | Optional   | Optional   | Optional   |  |
| Accessories              | Side Wall Service Taps            |     | Optional gas tap, vaccum<br>tap, compressed air<br>tap and water tap | Optional gas tap, vaccum<br>tap, compressed air<br>tap and water tap | Optional gas tap, vaccum<br>tap, compressed air<br>tap and water tap | Optional gas tap, vaccum<br>tap, compressed air<br>tap and water tap |  |
|                          | Antimicrobial Coating             |     | Optional   | Optional   | Optional   | Optional   |  |
|                          | 316SS Work Surface                |     | Optional   | Optional   | Optional   | Optional   |  |
|                          | Work Surface                      |     | Single-piece   | Single-piece   | Single-piece   | Single-piece   |  |
|                          | Touch Screen                      |     | /  | /  | /  | /  |  |
|                          | Motorized Window                  |     | /  | /  | /  | /  |  |
|                          | Foot Switch                       |     | /  | /  | /  | /  |  |
|                          | Armrest                           |     | Y  | Y  | Y  | Y  |  |
|                          | Exhaust Duct Connection Kits      |     | /  | /  | /  | /  |  |
| Others                   | Certification                     |     | CE   | /  | CE   | CE   |  |

# Laminar Flow Cabinet



# Product Advantages



Positive pressure chamber design ensures air velocity uniformity and forms effective seal



The workspace is made of easy-to-clean, high-quality, anti-corrosion 304 stainless



Designed with access ports on left and right sides, easy and convenient to mount valves such as gas supply



Ergonomic cabinet design with a 10 ° inclination, to improve user comfort during operation



The front sash window and the left & right-side glass panels are all non-reflective tempered UV glass to maximise natural light during operation, which also makes the glass easy to clean

Specifications

|                          | Model                             |     | HCB-1300VS   | HCB-1600VS   |  |
|--------------------------|-----------------------------------|-----|--|--|--|
|                          | Flow Type                         |     | Vertical   | Vertical   |  |
|                          | Power Supply(V/Hz)                |     | 220/50/60  | 220/50/60  |  |
|                          | Power (W)                         |     | 1350   | 1200/1350  |  |
|                          | Vibration Amplitude (UM)          |     | 2  | 2  |  |
| General<br>Specification | Exhaust Filter Typical Efficiency |     | H13 HEPA,99.99%@0.3um  | H13 HEPA,99.99%@0.3um  |  |
|                          | Average Velocity (M/S)            |     | 0.20-0.50  | 0.20-0.50  |  |
|                          | Lighting Intensity (Lux)          |     | ≥600   | ≥1000  |  |
|                          | Sound Level (dB(A))               |     | 60   | 63   |  |
|                          | Sash Opening(mm)                  |     | Max 360  | Max 360  |  |
|                          |                                   | kg  | 180/232  | 202/260  |  |
|                          | Net/Gross Weight                  | lbs | 397/511.5  | 445.3/573  |  |
|                          |                                   | mm  | 1300*510*550   | 1600*510*550   |  |
|                          | Internal Dimensions (W*D*H)       | in  | 51.2*20.1*21.7   | 60.0*20.1*21.7   |  |
|                          |                                   | mm  | 1370*640*1820  | 1670*640*1820  |  |
| Dimensions               | External Dimesion (W*D*H)         | in  | 53.9*25.2*71.7   | 65.7*25.2*71.7   |  |
| Dimensions               | Packing Dimensions (W*D*H)        | mm  | 1480*845*1290  | 1780*840*1270  |  |
|                          |                                   | in  | 58.3*33.3*50.8   | 70.1*33.1*50.0   |  |
|                          | Support Stand(mm)                 |     | 750mm (standard)   | 750mm (standard)   |  |
|                          | Container Load (20'40'40'H)       |     | 11/20/20   | 7/14/14  |  |
|                          | UV Lamp                           |     | Y  | Y  |  |
|                          | Power Outlet Socket               |     | 2 sockets  | 2 sockets  |  |
|                          | Conversion Socket                 |     | Optional   | Optional   |  |
|                          | Cleanliness Classification        |     | ISO 14644.1 Class 4  | ISO 14644.1 Class 4  |  |
|                          | Valve Port                        |     | 2 on each side   | 2 on each side   |  |
| Accessories              | Side Wall Service Taps            |     | Optional gas tap, vaccum tap, compressed air tap and water tap | Optional gas tap, vaccum tap, compressed air tap and water tap |  |
|                          | Antimicrobial Coating             |     | Optional   | Optional   |  |
|                          | 316SS Work Surface                |     | Optional   | Optional   |  |
|                          | Work Surface                      |     | Single-piece   | Single-piece   |  |
|                          | Touch Screen                      |     | /  | /  |  |
|                          | Motorized Window                  |     | /  | /  |  |
|                          | Foot Switch                       |     | /  | /  |  |
|                          | Armrest                           |     | Y  | Y  |  |
|                          | Exhaust Duct Connection Kits      |     | /  | /  |  |
| Others                   | Certification                     |     | /  | /  |  |

steel

# **Ductless Fume Hood**

# Scope of Application

Haier Biomedical Ductless Fume Hood utilizes carbon filtration to protect laboratory personnel and the environment from toxic chemical fumes, odours, and particles. It is widely used in universities, public health, chemical and petrochemical industry, drug testing, museums and many other fields which involve the use of chemicals

### Product Advantages

requirements



Intelligent constant speed design, ensures the best adsorption effect of the filter



Energy-efficient EC fan for a longer service life and reliable operation



Offers a broad range of accessories and options to meet clients' different



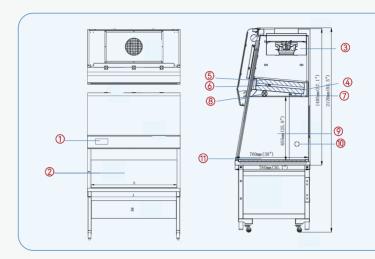
Standard VOC sensor detects presence of volatile organic compounds in the exhaust and alarms to indicate filter saturation



Multiple stackable filter types: remove vapor contaminants from the air, can be combined to handle different types of chemicals and particulates during the same application



# Product Dimension



# Types of Filters

Carbon filters are used to remove toxic gases, hazardous fumes, and odors. These filters are constructed from high-quality carbon pellets and durable chemical-resistant cases. Below is Haier Biomedical filters list

| Code No | Name  |                       |
|---------|---|-----------------------|
| А       | Standard Filter (Mixed with N4A1, N4B1 and N4G1 activated carbon) | Suitable for<br>requi |
| В       | Organic Solvent Filter<br>(N4G1 activated carbon)                 | Removal of to         |
| С       | Acid Gas Filter<br>(N4A1 activated carbon)                        | Removal of hydr       |
| D       | Alkaline Gas Filter<br>(N4B1 activated carbon)                    |                       |
| E       | Formaldehyde Filter   |                       |
| F       | Particle Filter   |                       |

# **Specifications**

| Model                            |                          | HTF-1200W   | HTF-1500W      |  |
|----------------------------------|--------------------------|---|----------------|--|
| Power Supply (V/Hz)              |                          | 220/50/60   | 220/50/60      |  |
| Power (W)                        |                          | 1200  | 1300           |  |
| Sound Level (dl                  | B(A))                    | ≤58   | ≤58            |  |
| Inflow Air Veloc                 | city (m/s)               | 0.4-0.6   | 0.4-0.6        |  |
| Fluorescent Lig                  | ght Intensity (lux)      | ≥1000   | ≥1000          |  |
| Filtration                       | First Filter             | Activated Carbon with Granular Media bed (6 different filter types available , codes      |                |  |
| Elements                         | Second Filter (optional) | Activated Carbon with Granular Media bed (6 different filter types available , codes A-F) |                |  |
| Exterior Dimensions (W*D*H)(mm)  |                          | 1336*780*2120   | 1636*780*2120  |  |
| Operation Dimensions (W*D*H)(mm) |                          | 1230*760*655  | 1530*760*655   |  |
| Packaging Dimensions (W*D*H)(mm) |                          | 1400*925*1665   | 1700*925*1665  |  |
| Net Weight (Kg)                  |                          | 230   | 250            |  |
| Packaging Weight (Kg)            |                          | 290   | 330            |  |
| Display                          |                          | 10 inch screen  | 10 inch screen |  |
| VOC Sensor                       |                          | Standard (1)  | Standard (1)   |  |
| Certification                    |                          | CE  | CE             |  |

- 1. Microprocessor Control System
- 2. Tempered Glass Sliding Sash Window
- 3.EC fan
- 4.First filter
- 5.Second filter(optional)
- 6.VOC sensor
- 7. Temperature and humidity sensor
- 8.Wind velocity sensor
- 9. Tempered Glass Side
- 10.Electrical sockets(2 on each side)
- 11.Powder coated steel worktop

| Suitable Applications   |
|---|
| all common laboratory chemicals, especially with organics. When no specific<br>irements are present, or when more than one type of chemical is used |
| oluene, benzene, xylene, acetone, acetic acid, carbon tetrachloride, chloroform,<br>CxHy, VOC , etc   |
| rochloric acid, sulfuric acid, hydrofluoric acid, hydrogen sulfide, sulfur dioxide , etc  |
| Removal of ammonia, amine, etc.   |

Mainly used for adsorption of formaldehyde Mainly used to absorb dust