

CHCALLE

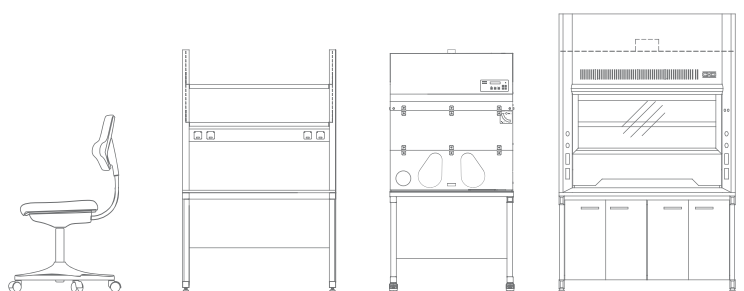
NGEHHO

NESTY

COMMUN

NICATION

**CHD**



ENGLISH



# COMFORT

The ergonomic and flexible design of CHC Lab products allows the researchers to work in a safer and more comfortable way in any laboratory environment. The modularity of our system permits a fast and cost-effective re-arrangement of the lab design and furniture allocation when required.



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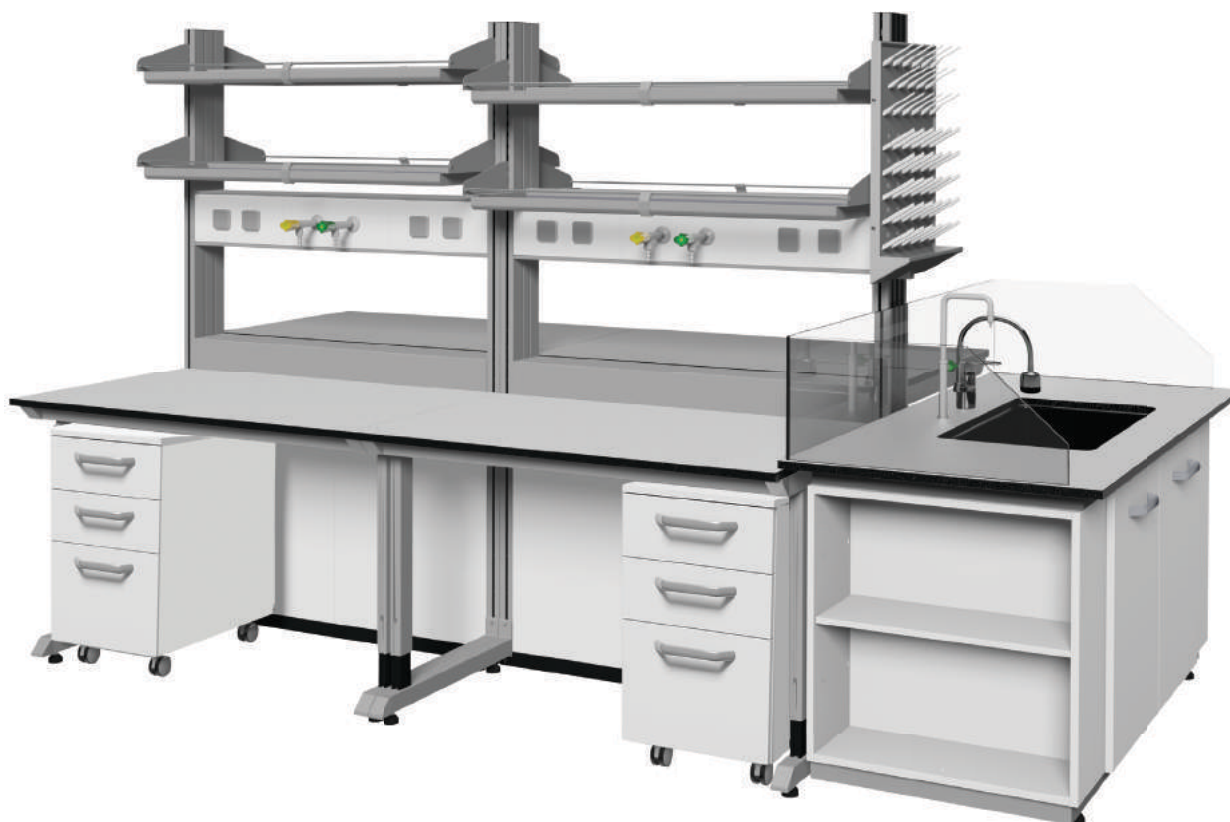


# Lab Furniture Products



# LEVEL PRO

**LEVEL PRO** furniture system allows maximum flexibility, coupled with an elegant and modern design. The system features fit perfectly in any dynamic and fast-changing laboratory environment.



## • System Description

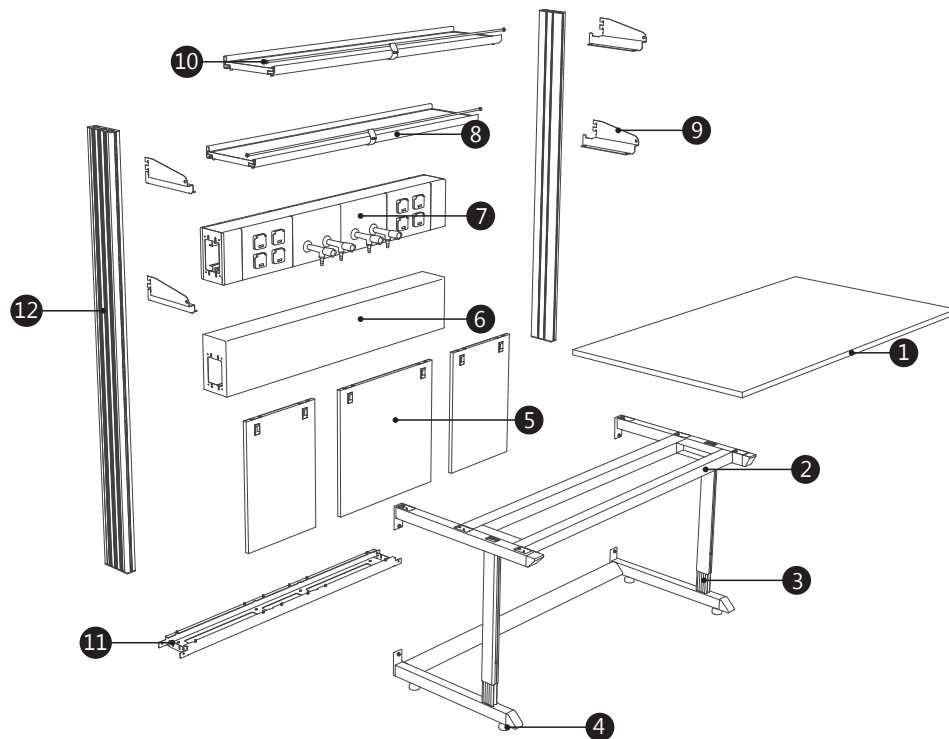
In order to respond to the needs of a well-designed laboratory, such as a functional and flexible services distribution system, CHC LAB developed LEVEL PRO.

Our services spine, based on easy dismantable, interchangeable and combinable panels, allows for any type of changes in the distribution of taps and electrical components.

The system allows for any services access point, whether from the ceiling, using a drop in the column, or from the floor.

The spine can adapt easily to any new requirement arising after the installation without involving any costly and time-consuming change in the facility services distribution and connections. The Modularity of the system allows for a fast and easy re-allocation of the furniture in any space of the building.

## Design Breakdown



### [Components]

1. Worktop
2. Top support frame
3. Height-adjustable table frame
4. Height adjustable foot Levelling feet
5. Skirt pannel
6. Additional Services module
7. Main Services Module
8. Shelf
9. Shelf bracket
10. Fall prevention bar & cap
11. Bottom enclosure panel
12. Pillar structure & cover

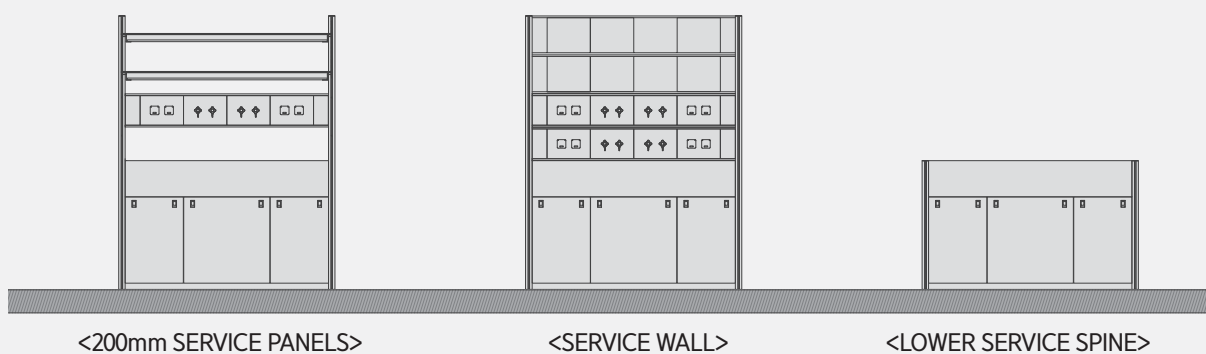
### • Spine Option

Service panels can be combined in different configurations in order to ensure a versatile workspace.

**1<sup>st</sup> ONE ROW OF PANELS :** Combination of service panels with shelves (max. 3 levels of adjustable shelves).

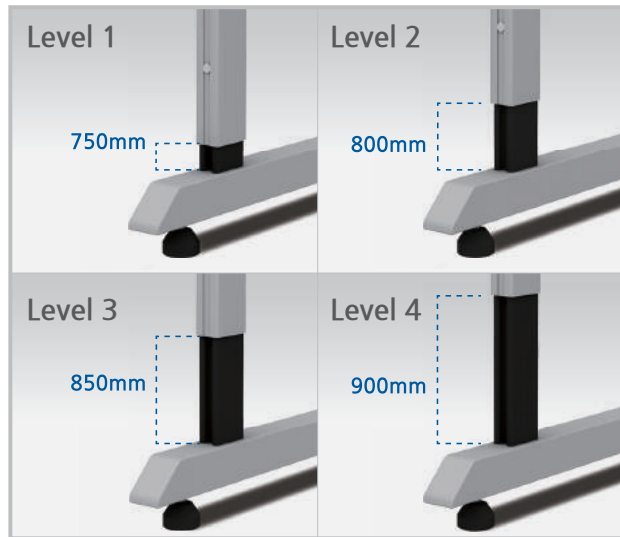
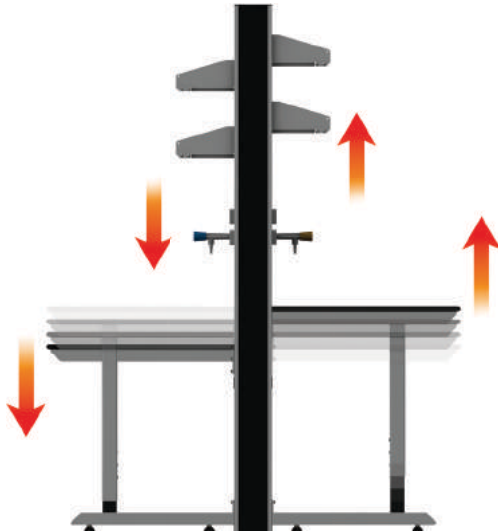
**2<sup>nd</sup> SERVICES WALL :** Ideal for heavy serviced areas allowing for multiple equipments connected simultaneously.

**3<sup>rd</sup> LOW SERVICE SPINE :** Allows for services at worktop level and useful to enclose services running along the walls.

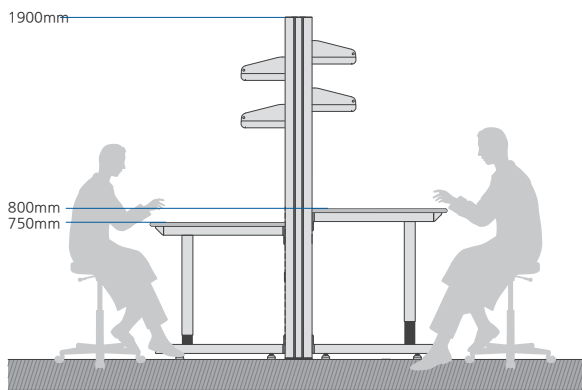


## Ergonomics

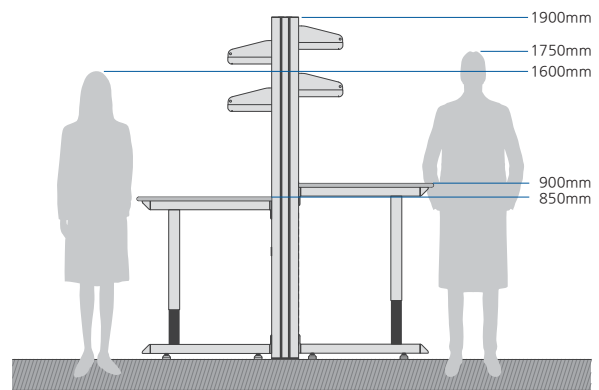
### • 4 Levels height-adjustable lab table



※ The distance between floor and work surfaces is 750mm, 800mm, 850mm and 900mm



Sitting position. Distance from floor 750–800 mm



Standing up position. Distance from floor 850–900 mm

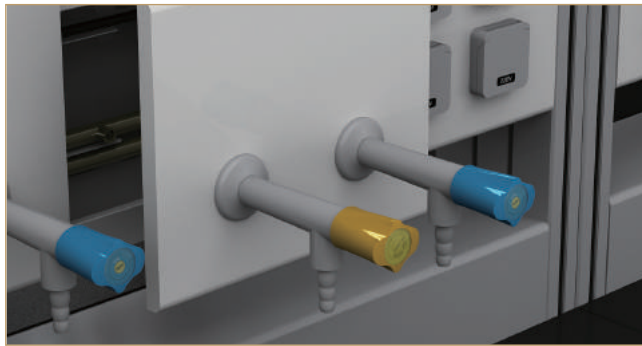


Easily Adjustable independent height shelves.



## Flexibility

- **LEVEL PRO Services module**



Easily interchangeable service panels. Allows for multiple combinations of taps and sockets depending on needs and requirements.

- **LEVEL PRO Skirt panel**

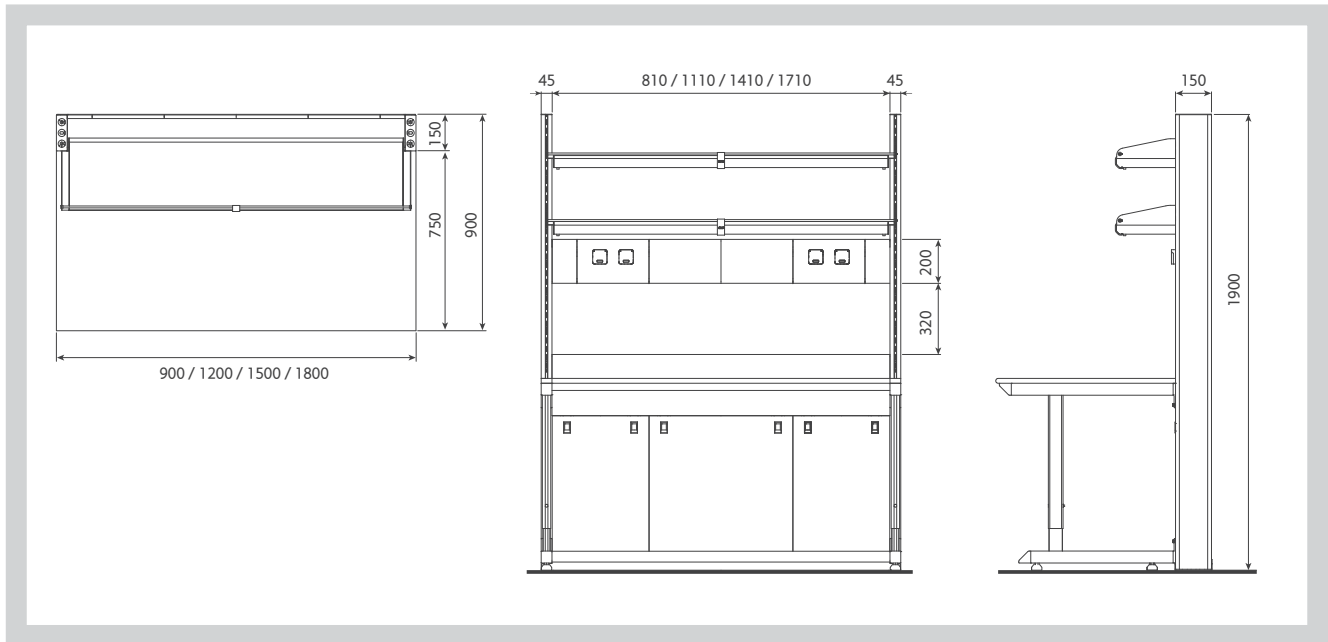


LEVEL PRO skirt panel has a safe and clean design. Can be easily removed, allowing for fast maintenance operations.

- **LEVEL PRO Choice of colors**



• Dimensional Drawing



# PRODUCT LIST

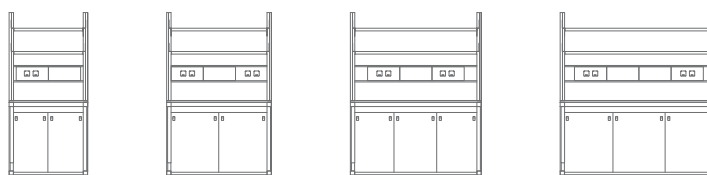
Unit : mm

## Island Bench Shelf Type



Width	Depth	Height
900 / 1200 / 1500 / 1800	1650	900/1900

- Height adjustment : 750 / 800 / 850 / 900mm



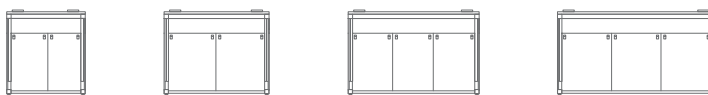
H-LCS-900      H-LCS-1200      H-LCS-1500      H-LCS-1800

## Island Bench



Width	Depth	Height
900 / 1200 / 1500 / 1800	1650	900

- Height adjustment : 750 / 800 / 850 / 900mm



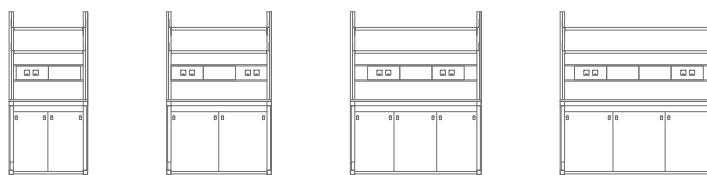
H-LCP-900      H-LCP-1200      H-LCP-1500      H-LCP-1800

## Wall bench Shelf Type



Width	Depth	Height
900 / 1200 / 1500 / 1800	900	900/1900

- Height adjustment : 750 / 800 / 850 / 900mm



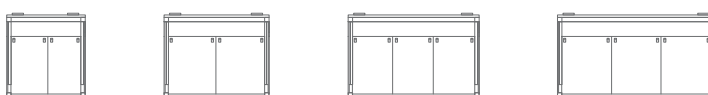
H-LSS-900      H-LSS-1200      H-LSS-1500      H-LSS-1800

## Wall bench



Width	Depth	Height
900 / 1200 / 1500 / 1800	900	900

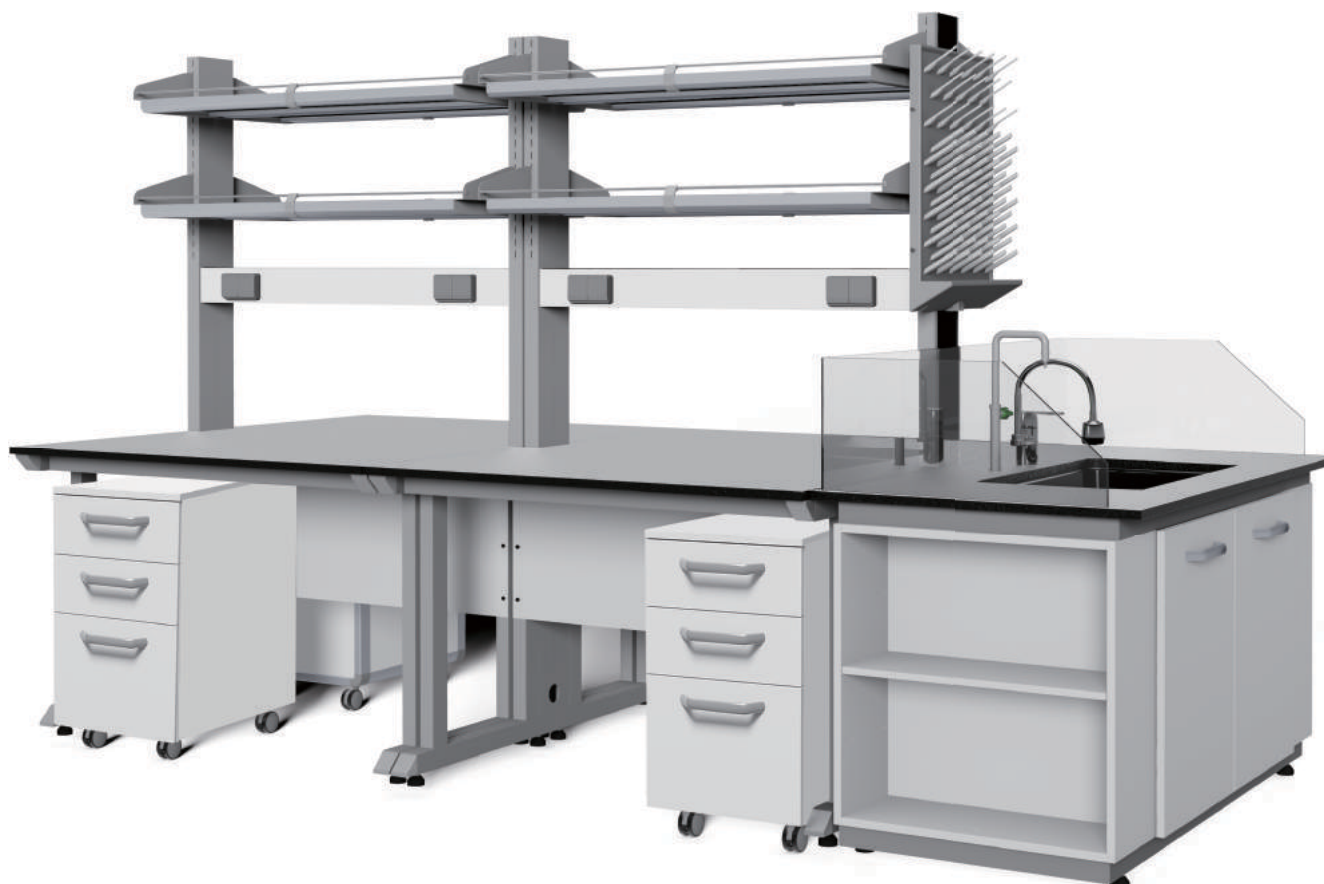
- Height adjustment : 750 / 800 / 850 / 900mm



H-LSP-900      H-LSP-1200      H-LSP-1500      H-LSP-1800

# HARD PRO

**HARD PRO** bench type system is the right solution for heavy duty, less serviced and less changing laboratory environments. Ideally for lab environments with well established procedures.



## • System Description

To respond to the requirements of a strong and heavy duty laboratory environment, CHCLAB created HARD PRO system.

With a simplified and still ergonomic design, this system ensures durability and sturdiness in all those laboratory spaces where heavy equipment and more consistent and standard processes are required. Safety is increased through a separation of services lines, one for electrical devices and another for taps, while the ergonomics are maintained by the dual adjustment independent shelves system.

## Durability

- **Utility box**



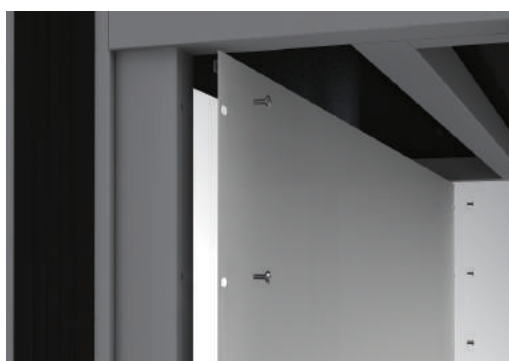
STEEL epoxy coated utility box. Ample internal space for installation and connection of several services. Easily removable PVC strip for easy access for maintenance and control purpose. Sturdily attached to spine pillars to avoid bending and twisting.

- **HARD PRO frame type**



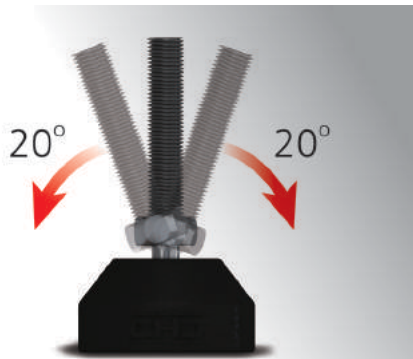
STEEL or ALUMINUM «H» frame type  
Tubular 50 x 50 structure, epoxy coated  
Horizontal and vertical structure welded together to ensure high load capacity.

- **Skirt panel**



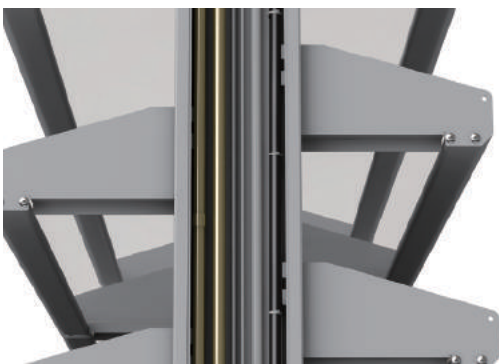
HARD PRO skirt panel, Easily detachable, steel epoxy painted, ensures safety, protects services connections from exposure and allows for easy maintenance and cleaning.

• **Levelling feet**



Levelling feet allow perfect vertical and horizontal level of the table structure.

• **Multipurpose drop-in pillar structure**



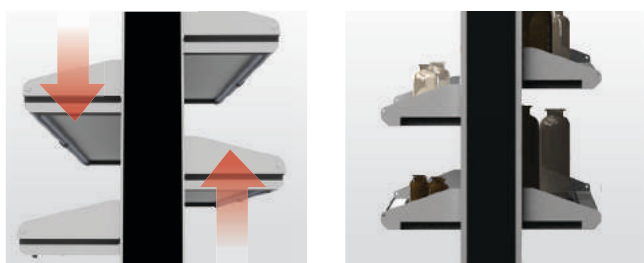
The CHC service system counts with a structure of multipurpose epoxy coated steel posts that work both as a structural element, providing unbeatable sturdiness and stability as well as a services drop. Internal width allows the installation of both electricity, data or gases. Easily removable PVC strip for easy access for maintenance and control purposes. Sturdily attached to the table frame to ensure the stability of the bench structure.

• **Safety independent shelves**

Independent shelves table	Safety	Integrated shelves table	Hazard
<p>Each shelf can be adjusted independently. Easy to create appropriate and safe space on the table for large equipment.</p>			

## Ergonomics

- Ergonomic dual height adjustment system
- Shelf surface options



The dual height adjustable system enables not only to arrange large equipment but also to store the reagent bottles of various sizes with convenience and safety by adjusting the height of the shelves.

Type		Tempered glass	PB	Phenolic laminate
HARD PRO	Steel	Option	Standard	Option
	Aluminum	Standard	Option	

**Tempered glass**

The tensile strength of tempered glass is 3 times stronger than normal glass. It has excellent chemical resistance, allows natural light penetration for better desk illumination and permits immediate detection of contamination and leaks of reagents.

**Particle board**

With an excellent chemical, temperature and physical resistance, it is a very versatile solution.

**Phenolic laminate**

With increased chemical resistance through L,P,M treatment is a very cost effective solution

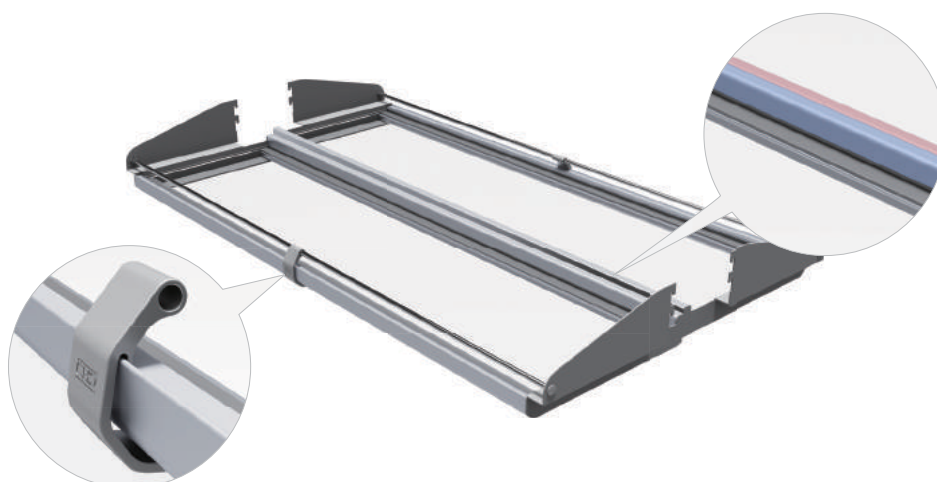
- Safety prevention through design(Ptd)

### Detachable anti-drop bar :

Can be easily attached and detached by the user.  
Prevents accidents that can occur when a reagent bottle hits the bump.

### Back lip :

Prevents reagent bottles to fall down from the back side.



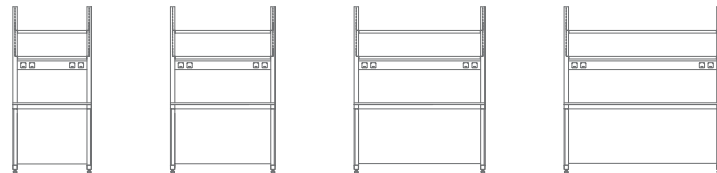
# PRODUCT LIST

Unit : mm

## Island Bench Shelf Type



Width	Depth	Height
900 / 1200 / 1500 / 1800	1500	900 / 1900

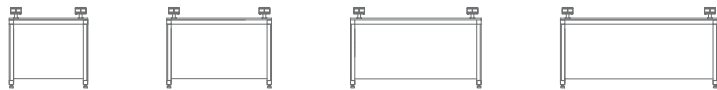


Steel ·	<a href="#">HR-HCS-900S</a>	<a href="#">HR-HCS-1200S</a>	<a href="#">HR-HCS-1500S</a>	<a href="#">HR-HCS-1800S</a>
Aluminum ·	<a href="#">HR-HCS-900A</a>	<a href="#">HR-HCS-1200A</a>	<a href="#">HR-HCS-1500A</a>	<a href="#">HR-HCS-1800A</a>

## Island Bench



Width	Depth	Height
900 / 1200 / 1500 / 1800	1500	900

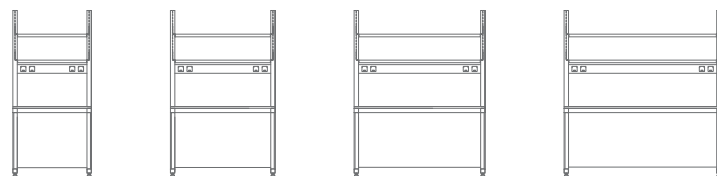


Steel ·	<a href="#">HR-HCP-900S</a>	<a href="#">HR-HCP-1200S</a>	<a href="#">HR-HCP-1500S</a>	<a href="#">HR-HCP-1800S</a>
Aluminum ·	<a href="#">HR-HCP-900A</a>	<a href="#">HR-HCP-1200A</a>	<a href="#">HR-HCP-1500A</a>	<a href="#">HR-HCP-1800A</a>

## Wall Bench Shelf Type



Width	Depth	Height
900 / 1200 / 1500 / 1800	750	900 / 1900

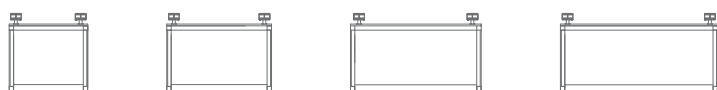


Steel ·	<a href="#">HR-HSS-900S</a>	<a href="#">HR-HSS-1200S</a>	<a href="#">HR-HSS-1500S</a>	<a href="#">HR-HSS-1800S</a>
Aluminum ·	<a href="#">HR-HSS-900A</a>	<a href="#">HR-HSS-1200A</a>	<a href="#">HR-HSS-1500A</a>	<a href="#">HR-HSS-1800A</a>

## Wall Bench



Width	Depth	Height
900 / 1200 / 1500 / 1800	750	900



Steel ·	<a href="#">HR-HSP-900S</a>	<a href="#">HR-HSP-1200S</a>	<a href="#">HR-HSP-1500S</a>	<a href="#">HR-HSP-1800S</a>
Aluminum ·	<a href="#">HR-HSP-900A</a>	<a href="#">HR-HSP-1200A</a>	<a href="#">HR-HSP-1500A</a>	<a href="#">HR-HSP-1800A</a>



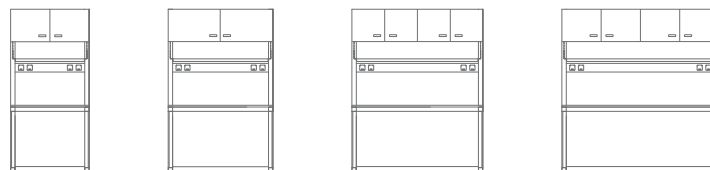
Unit : mm

## Wall Bench

### Overhead Storage Cabinets

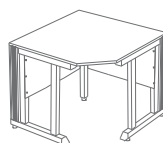


Width	Depth	Height
900 / 1200 / 1500 / 1800	750	900 / 1900



Steel · [HR-HSC-900S](#)   [HR-HSC-1200S](#)   [HR-HSC-1500S](#)   [HR-HSC-1800S](#)  
 Aluminum · [HR-HSC-900A](#)   [HR-HSC-1200A](#)   [HR-HSC-1500A](#)   [HR-HSC-1800A](#)

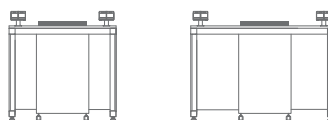
## Corner Module



Width	Depth	Height
1000	1000	900

Steel · [HR-HCN-1000S](#)  
 Aluminum · [HR-HCN-1000A](#)

## Balance Table



Width	Depth	Height
900 / 1200	750	900

Steel · [HR-HBL-900S](#)   [HR-HBL-1200S](#)  
 Aluminum · [HR-HBL-900A](#)   [HR-HBL-1200A](#)

· Work top 1 : Marble stone  
 · Work top 2 : Phenolic laminate

# SINK MODULE

Sink units are essential pieces of furniture in laboratory operations. Sinks can be manufactured in several materials. Pegboard, anti-splash screen and emergency eyewash tap can be installed.



## Island Module

PB body PUR edging · H-ST5-Width  
Steel body · H-ST5-Width-S

Width	Depth	Height
1500 / 1650	750	900

Unit : mm

## SINK Type

### Island & Wall



PB body PUR edging · H-STF-Width  
Steel body · H-STF-Width-S

Width	Depth	Height
1500 / 1650	750	900

Unit : mm

### Wall



PB body PUR edging · H-ST-Width  
Steel body · H-ST-Width-S

Width	Depth	Height
750 / 900 1200 / 1500	750	900

Unit : mm





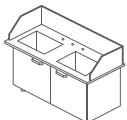
### Wall (Right / Doule)



PB body PUR edging · H-STD-1500 / H-STR-1500  
Steel body · H-STD-1500S / H-STR-1500S

Width	Depth	Height
1500	750	900

Unit : mm

General description		Model No.	Type	Basic		Option
Island type		H-ST H-ST-S	Body	P.B	Steel	/
			Worktop	Epoxy		Phenolic laminate
			Splashback	Polycarbonate 8mm / One side		Tempered safety glass 8mm / Three side
		H-STF H-STF-S	Sink bowl	Epoxy		/
			Water tap	One way water faucet & Mixing faucet		Eyewash
			Side door	Open		1 Door, 2 Door
Wall type		H-ST H-ST-S	Body	P.B	Steel	/
			Worktop	Epoxy		Phenolic laminate
			Splashback	Polycarbonate 8mm / One side		Tempered safety glass 8mm / Three side
			Sink bowl	Epoxy (Center)		Epoxy (left or right)
			Water tap	One way water faucet & Mixing faucet		Eyewash
			Side door	Open		1 Door, 2 Door
		H-STR-1500 H-STR-1500S	Body	P.B	Steel	/
			Worktop	Epoxy		Phenolic laminate
			Splashback	Polycarbonate 8mm / One side		Tempered safety glass 8mm / Three side
			Sink bowl	H-STR : Right / H-STD : Double		H-STR : Left
			Water tap	One way water faucet & Mixing faucet		Eyewash
			Front or side door	H-STR : Open / H-STD : None		/
	H-STD-1500 H-STD-1500S	Sink bowl	H-STR : Right / H-STD : Double		H-STR : Left	
		Water tap	One way water faucet & Mixing faucet		Eyewash	
		Front or side door	H-STR : Open / H-STD : None		/	

## SINK BOWL

### Polypropylene

Basic



Provides exceptional physical and chemical resistance. Required in medium to heavy -duty laboratory environments.

### Epoxy resin

Option



Smooth and light material, excellent chemical resistance including hydrofluoric acid. Easy to maintain and clean.

### Stainless steel

Option



Two quality options for stainless steel (304 and 316). Excellent mechanical properties, corrosion resistance, heat and cold temperature resistance.

# UNDERBENCH & CABINET

Unit : mm

## Cabinets W/ Drawers



Model No.		Dimensions (WxDxH mm)	Material			
			Exterior	Interior	Interior (Option)	
PB body PVC edging	3 drawers	HR-MD3-450	450 x 490 x 800	PB body PUR edging	P.V.C	P.B
		HR-MD3-600	600 x 490 x 800			
	4 drawers	HR-MD4-450	450 x 490 x 800			
		HR-MD4-600	600 x 490 x 800			
Steel	3 drawers	HR-MDS3-450	450 x 490 x 800	STEEL	STEEL	P.V.C
		HR-MDS3-600	600 x 490 x 800			
	4 drawers	HR-MDS4-450	450 x 490 x 800			
		HR-MDS4-600	600 x 490 x 800			

## Cabinets W/ Doors



Model No.		Dimensions (WxDxH mm)	Material	
			Exterior	Interior
PB	HR-MC-450	450 x 490 x 800	PB body PUR edging	PB body PUR edging
	HR-MC-600	600 x 490 x 800		
	HR-MC-750	750 x 490 x 800		
	HR-MC-900	900 x 490 x 800		
	HR-MC-1050	1050 x 490 x 800		
	HR-MC-1200	1200 x 490 x 800		
Steel	HR-MCS-450	450 x 490 x 800	STEEL	STEEL
	HR-MCS-600	600 x 490 x 800		
	HR-MCS-750	750 x 490 x 800		
	HR-MCS-900	900 x 490 x 800		
	HR-MCS-1050	1050 x 490 x 800		
	HR-MCS-1200	1200 x 490 x 800		

# ACCESSORIES

**BROEN-LAB**   

## 2 Way Mixing Water Faucet

Model No. **WB35-3552E**



## 1 Way Water Faucet

Model No. **WB34-0108**



## 3 Way Water Faucet

Model No. **WB33-0108**



## DI Water Faucet

Model No. **WB33-0309**



## 1 Hole Faucet

Model No. **WKS-0205**



## Cobra Faucet

Model No. **WWZ-3810**



## EyeWash (Single spray head)

Model No. **EWB-106-003**

- Capacity : 7L / min
- Pressure(Min) : 1,5 Bar
- Anti-corrosive epoxy coating
- Certified to DIN EN 246



## EyeWash (Double spray head)

Model No. **EWB-212-009**

- Capacity : 14L / min
- Pressure(Min) : 1,5 Bar
- Anti-corrosive epoxy coating
- Certified to DIN EN 246



## Emergency Shower

Model No. **EST-1S30-380**

- **Materials**
  - Pipes in galvanised steel
  - Brass fittings
  - Aluminum base and pedals
  - Anti-corrosion epoxy paint



## Peg Board

Model No. **PDKA-213**

- **Materials**
  - High impact polystyrene



(4mm HLPS, 72EA )

Width	Depth	Height
450	110	630

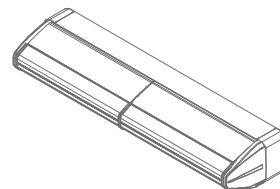
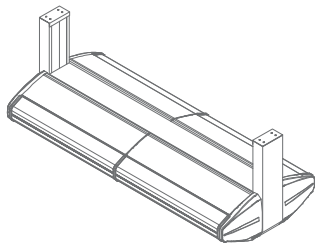


# Overhead Service Carrier



Ceiling type · H-OC-Width

Wall type · H-OS-Width



Unit : mm

Unit : mm

Width	Depth	Height
900/1200/1500/1800	705	285

Width	Depth	Height
900/1200/1500/1800	425	285

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## Utility Combinations

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Depending on the requirements, several units can be attached together allowing an extensive possibility of services combination. Extraction arm can be incorporated in this configuration.

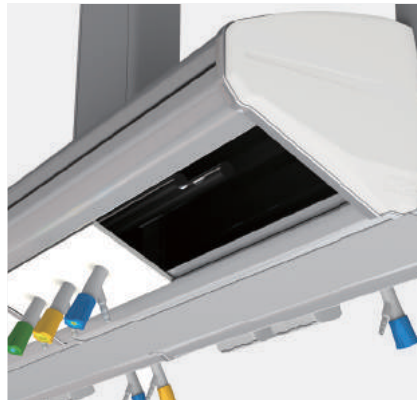


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## Add and Remove Utilities

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Thanks to the easy detachable and interchangeable service panel system, utilities can be added or removed at any time.

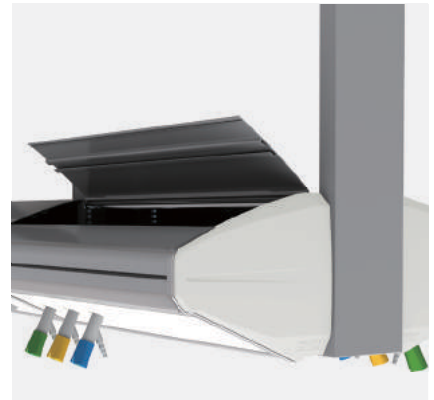


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## Maintenance Operations

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Wing upper lid is designed to be easily opened and allow fast and cheap maintenance operations.









# Exhaust System Products



EN 14175

ASHRAE 110-2016



# Fume Hood

The Fume hood is an essential equipment to secure the safety of the researchers as well as the laboratory environment from the harmful substances and contaminated gases. CHC Fume Hoods have been gradually improved to comply with the strictest international standards, such as ASHRAE 110-2016 and EN-14175. The highly detailed technical construction and quality of the materials used ensure safety of the end user at any time.



※ Prime Fume hood



## SAFETY

Safety sash lock system

ELB (IP 54)

Socket & Valve

Raised edge worksurface

Airfoil



## ECO

Combination sash

VAV system

Exhaust collar (DN 250)

Auto-close sash system

LED Lamp



## CONVENIENCE

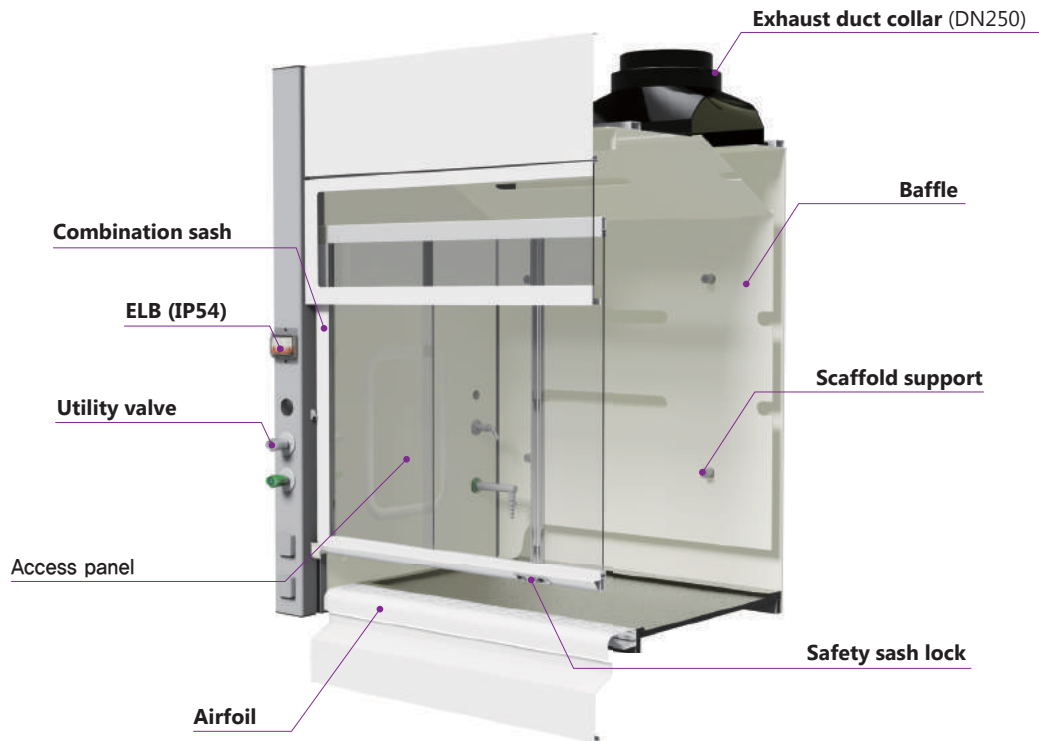
Various fittings & Valves

Built in under bench cabinet

Scaffold support (STS stand)

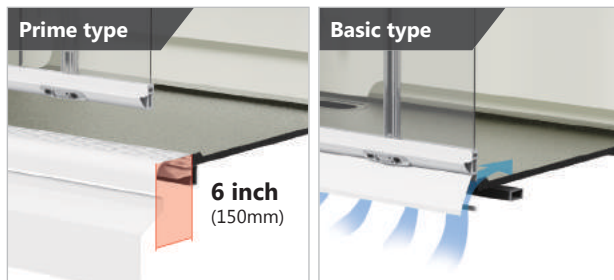
Touch pad monitor

## Structural Features



### SAFETY

#### • AirFoil



Enables smooth flow over the work surface to prevent turbulent top levels turbulences  
 Prime fume hood models include a 6 inch grid that improves safety and collects potential spillages.

#### • Sash Lock

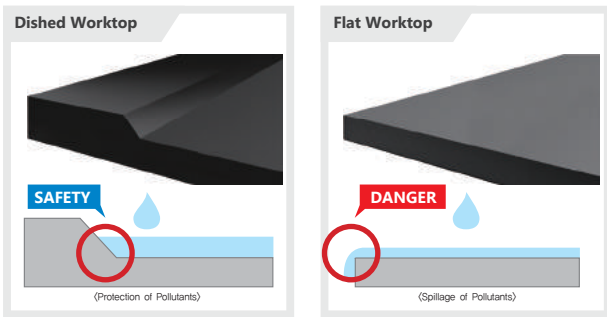
The Fume Hood sash is mechanically stopped at 500mm height to prevent the exposure to harmful substances or unexpected explosions. The sash stop can be easily removed using just one hand.



Sash lock is conveniently positioned on the sash frame.

If sash needs to be opened more than 500mm, push the lock when opening.

• **Dished work surface**



Raised edge worktop molded with seamless joints prevents spillages and avoids exposure to harmful gases and vapours.

• **ELB(IP54)**



Easy and safe to handle due to its frontal location, using the IP54 grade cover.

• **Safety Gas Valve**



Push-turn type valve prevents misuse and increases to ensure safety.

 **ECO**

• **Combination Sash**



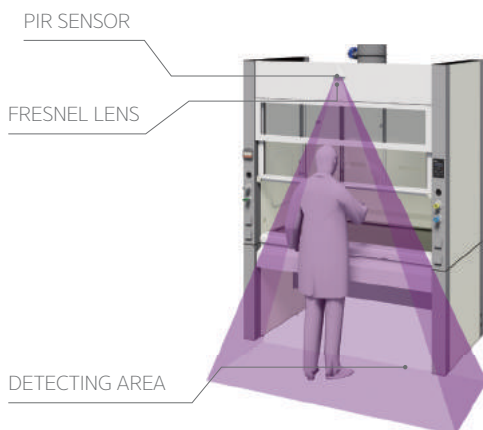
**[SASH OPTION 1]**

One piece sash for full visibility.

**[SASH OPTION 2]**

Sliding windows to allow easy and safe internal operations without opening up the sash.

• **PIR SENSOR(Option)**



A PIR sensor, equipped with infrared detection rays, connected to the motorized sash, detects the movements of the users and automatically closes the sash when nobody is using the Fume Hood.

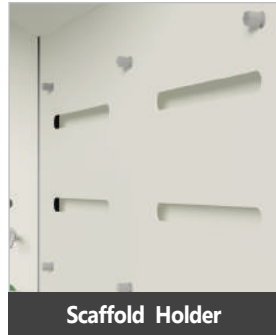
Setting time for automatic door closing can be customized. This function reduces energy consumption and improves safety.

 **CONVENIENCE**

• **Scaffold Holder**



Stainless Rack & holder



Scaffold Holder

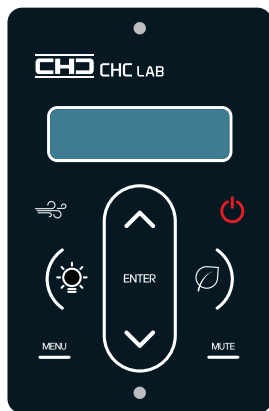
PP scaffold support with strong chemical resistance. Holds the Stainless steel Rack firmly and prevents corrosion. Easily dismantled for cleaning operations or to be replaced when needed.

• **Built-In Cabinets**



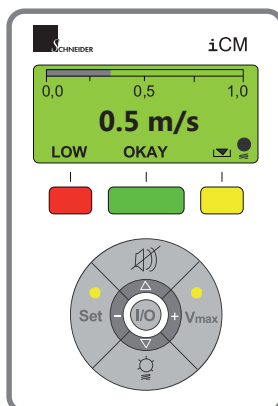
Depending on the laboratory environment, built-in safety cabinets or standard cabinets can be installed under the fume hoods, maximizing space utilization and improving safety.

• **Fume Hood Montior**



**[CHC CONTROLLER KEY FEATURES]**

- Adjust damper opening or fan speed (inverter option) depending on the position of the sash to keep constant exhaust volume.
- Face velocity display
- Emergency Exhaust System that opens the damper completely, independently of sash position, allowing maximum exhaust of harmful substances.

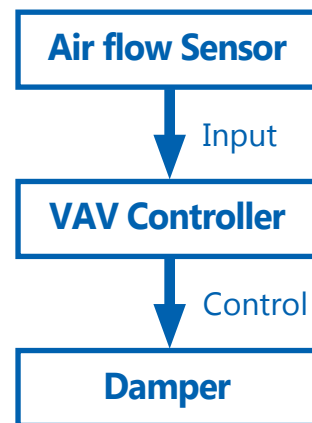
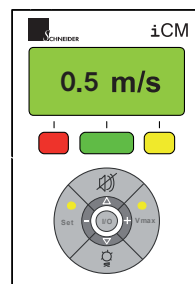
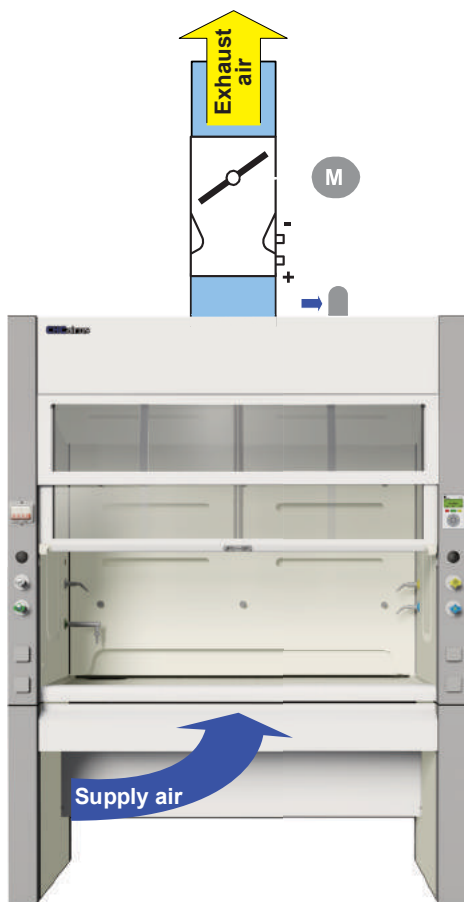


**[SCHNEIDER CONTROLLER KEY FEATURES -OPTION]**

- Extensive applications module.
- VAV sensor module can be installed to automatically control face velocity.
- Automatic sash control via PIR sensor module. Possibility to Set maximum sash opening.
- Sash closing automatically when nobody is using the fume hoods to save energy and ensure safety.
- EN 14175 complying

# VAV SYSTEM

Lab Safety & Energy saving



---

## Variable air volume

The automatic face velocity control, maintains constant face velocity regardless of the sash position. It ensures the optimal fume hood performance and energy efficiency by reducing the air flow rate when the sash is closed.

---

## Constant air volume

Depending on the sash position, the face velocity of the fume hood will change. It exhausts the same air volume at all times providing lower performance as the face velocity varies.

# ASHRAE 110-2016

## EN 14175



### Face velocity test

Inflow air velocity is measured in sash opening positions, 20%, 50% and 100% (Avg inflow velocity  $0,45\pm 0,05\text{m/s}$ )



### Smoke visualization test

By generating smoke at the fume hood front section, it checks the presence of vortex and turbulence.



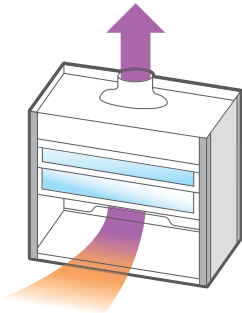
### Trace gas containment test

Tests gas leakage by gas sensor. (less than 0,1ppm)



# PRODUCT LIST

## PRIME



### Airflow

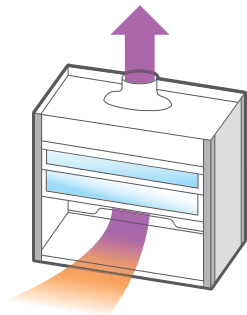
- Room air
- Contaminated air under negative pressure



Model No.		A-PR				
		1200	1500	1800	2100	2400
Dimensions (mm)	Width	1200	1500	1800	2100	2400
	Depth	950				
	Height	2360				
Color		White & Gray				
Sash type		Combination type				
Safety door stop		P,P				
Sash material		Tempered safety glass 5mm				
Cabinet		Option				
Cupsink		1 unit				
External material		Phenolic laminate 6mm				
Chamber material		Phenolic laminate 4mm				
Support stand		50 x 50 x 1.4mm sq pipe, epoxy powder coated				
Worktop		Epoxy resin 25mm (made in korea)				
Power receptacle		Euro type 4 units (International type available)				
Lamp		LED, 1 unit			LED, 2 units	
Controller		SCHNEIDER(IM50-monitoring display)				
Earth leakage circuit breaker		20A, 2 units				
Electrical box		Option				
N <sub>2</sub> valve		1 unit				
Water valve		1 unit				
Air valve		Option				
Collar (∅)		P,P / 250				
Blower		Option				
Option		Worktop : Ceramite / Window safety film / Electrical box / STS Rack Controller : CHC LAB / Additional utility valves / Cabinet (Under bench) / Blower				



## VAV type



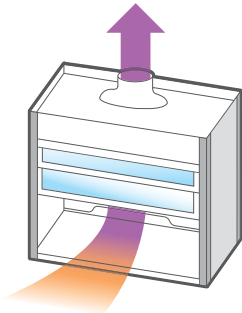
### Airflow

- Room air
- Contaminated air under negative pressure



Model No.		A-VA				
		1200	1500	1800	2100	2400
Dimensions (mm)	Width	1200	1500	1800	2100	2400
	Depth	817				
	Height	2360				
Color		White & Gray				
Sash type		Combination door type				
Safety door stop		P,P				
Sash material		Tempered safety glass 5mm				
Cabinet		Option				
Cupsink		1 unit				
External material		Phenolic laminate 6mm				
Chamber material		Phenolic laminate 4mm				
Support stand		50 x 50 x 1.4mm sq pipe, epoxy powder coated				
Worktop		Epoxy resin 25mm (made in korea)				
Power receptacle		Euro type 4 units (International type available)				
Lamp		LED, 1 units			LED, 2 units	
Controller		CHC LAB				
Earth leakage circuit breaker		20A, 2 units				
Electrical box		Option				
N <sub>2</sub> valve		1 unit				
Water valve		1 unit				
Air valve		Option				
Collar (∅)		P,P / 250				
Blower		Option				
Option		Worktop : Ceramite / Window safety film / Electrical box / STS Rack Controller : SCHNEIDER / Additional utility valves / Cabinet (Under bench) / Blower				

## Basic type



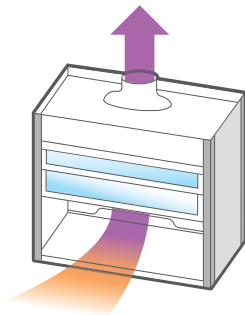
### Airflow

- Room air
- Contaminated air under negative pressure



Model No.		A-BY				
		1200	1500	1800	2100	2400
Dimensions (mm)	Width	1200	1500	1800	2100	2400
	Depth	950				
	Height	2360				
Color		White & Gray				
Sash type		Vertical type				
Safety door stop		P.P				
Sash material		Tempered safety glass 5mm				
Cabinet		Option				
Cupsink		1 unit				
External material		Phenolic laminate 6mm				
Chamber material		Phenolic laminate 4mm				
Support stand		50 x 50 x 1.4mm sq pipe, epoxy powder coated				
Worktop		Epoxy resin 25mm (made in korea)				
Power receptacle		Euro type 4 units (International type available)				
Lamp		LED, 1 units			LED, 2 units	
Controller		On / Off switch (Lamp & Blower)				
Earth leakage circuit breaker		20A, 2 units				
Electrical box		Option				
N <sub>2</sub> valve		1 unit				
Water valve		1 unit				
Air valve		Option				
Collar (∅)		P.P / 250				
Blower		Option				
Option		Worktop : Epoxy / Window safety film / Electrical box / STS Rack Controller : CHC LAB / Additional utility valves / Cabinet (Under bench) / Blower				

## ACID type



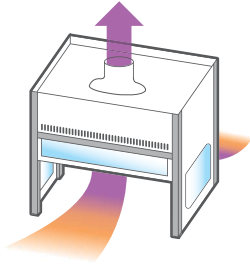
### Airflow

- Room air
- Contaminated air under negative pressure



Model No.		A-MC				
		1200	1500	1800	2100	2400
Dimensions (mm)	Width	1200	1500	1800	2100	2400
	Depth	950				
	Height	2360				
Color		White & Gray				
Sash type		Vertical type				
Safety door stop		P,P				
Sash material		Tempered safety glass 5mm				
Cabinet		Option				
Cupsink		1 unit				
External material		Phenolic laminate 6mm				
Chamber material		One piece welded pp 4mm				
Support stand		50 x 50 x 1.4mm sq pipe, epoxy powder coated				
Worktop		PVC / P,P				
Power receptacle		Euro type 4 units (International type available)				
Lamp		LED, 1 units			LED, 2 units	
Controller		On / Off switch (Lamp & Blower)				
Earth leakage circuit breaker		20A, 2 units				
Electrical box		Option				
N <sub>2</sub> valve		1 unit				
Water valve		1 unit				
Air valve		Option				
Collar (∅)		P,P / 250				
Blower		Option				
Option		Worktop : Epoxy / Window safety film / Electrical box / TS Rack Controller : CHC LAB / Additional utility valves / Cabinet (Under bench) / Blower				

## Table top type



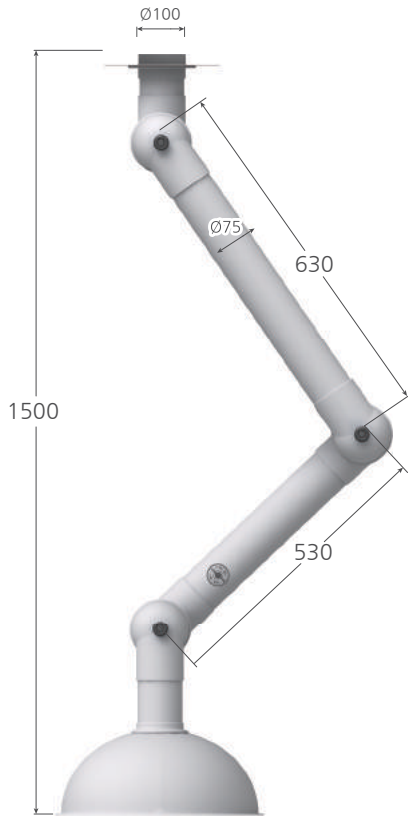
### Airflow

- Room Air
- Contaminated air under negative pressure
- Fresh Air

Model No.		A-MT			
		1800	2400	3600	4200
Dimensions (mm)	Width	1800	2400	3600	4200
	Depth	1500			
	Height	1600			
Color		White & Gray			
Sash type		Vertical type			
Sash material		Tempered safety glass 5mm			
Chamber		1 unit	1 or 2 units	2 units	2 units
External material		Steel 1,2t (Epoxy powder coated)			
Chamber material		Phenolic laminate 6mm			
Power receptacle		Euro type 2 units (International type available)			
Lamp		2 units	4 units	Downlight / 8 units	
Controller		On / Off switch (Lamp & Blower)			
Electrical box		220V single phase / 20A, 2 units			
Collar (∅)		P,P / 250			
Option		Window safety film			

# EXTRACTION ARM

Ensures the safety of extraction arm laboratory environment, exhausting contaminated air in a specific local area.



## Features



360 Degree swing

The head of the arm hood can be rotated 360 degrees.



Arm holder

The "O ring" ensures stability and prevents gas leaking.



Damper

Manually adjustable damper depending on users needs.

Unit : mm / Ø

## Extraction ARM & Bracket

 PP A-AD-PP	 PET A-AD-PE	 Acrylic A-AD-BOX	 Steel CLE-006   Ceiling type 300 X 300 X 2.0	 Steel CLE-007-A/B/C   Roof type 200 X 220 X 250 / 500 / 700
			 Steel CLE-008   Wall type 200 X 220 X 330	 PP CLE-009-A/B/C   Extension type 300 X 300 X 300 / 400 / 500

## Movable Extraction ARM

	C-FB-500	A-AFB-PP	A-AFB-PE	A-AFB-BOX
	Filter box 500 X 500 X 865mm			
		Arm hood Ø75 X 1300mm Dome : PP	Arm hood Ø75 X 1300mm Dome : PET	Acrylic box 500 X 450 X 400mm

# ERGONOMIC LAB CHAIR

Bimos European laboratory chairs provide maximum comfort due to their ergonomic design and as well as long lasting use due to their heavy duty construction.

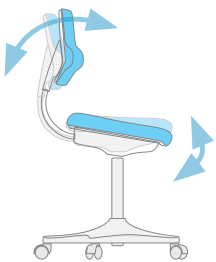


## Functions

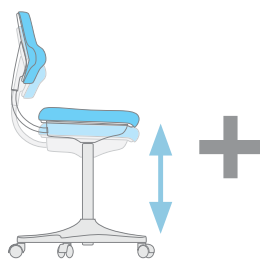


Seat height adjustment

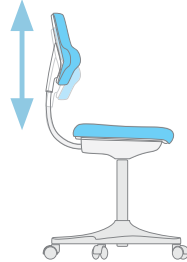
Seat swivel range of 20° to the left and right



Auto-motion technology



Seat height adjustment



Backrest height adjustment



### Labster



**Order No.**  
Black : 9103-2571  
White : 9103-6907  
Gray : 9103-6911

bimos

### Fin



**Order No.**  
Black : 9144-2000  
Gray : 9144-2002

bimos

### Cleanroom Plus



**Order No.**  
Black : 9181-2571

bimos

### Lab Stool (Backrest)



**Model No.**  
Black : CLF-932

### Lab Stool



**Model No.**  
Black : CLF-925

### FRP (Clean Room Only)



**Model No.**  
White : Decois-8170

# STORAGE CABINET

Easy maintenance and improved resistance to acid attacks.



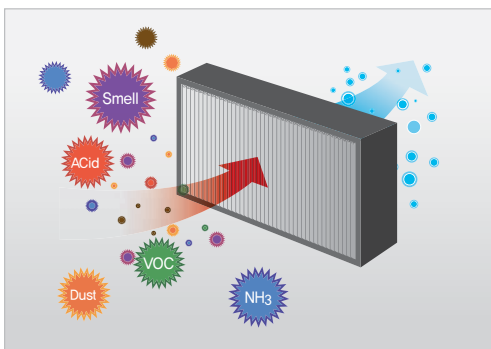
## Chemical and Corrosion Resistance

Eco-friendly E0 grade PB internal shelves that ensure better resistance thanks to the phenolic laminate finish.



## Triple Filtering System

CHC Hybrid Filter is economical because it removes acid, basic and organic gas with one filter.



# CLEAN STORAGE CABINET

## Closed type

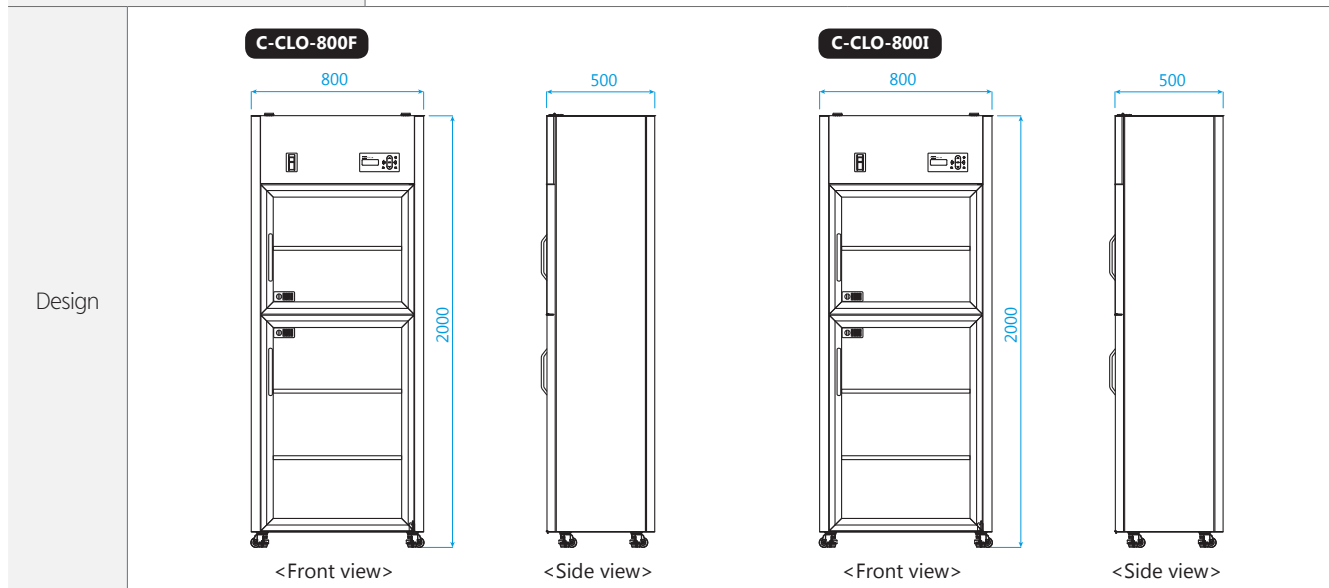


### Airflow

- Hybrid filtered air
- Contaminated air



		C-CLO-800F	C-CLO-800I
Dimensions	WxDxH(mm)	800 x 500 x 2000	
Material	Inner / Outer	Inner : Phenolic laminate 4t / Outer : Phenolic laminate 6t	
	Door	Acrylic(Brown color), 5t	
Performance	Wind speed (m/s)	0.47	
	Noise (dB)	46 dB/A	
	Lamp	LED Lamp DC 24V / 18W / 0.75A	
	Fan	AXIAL Fan 33W	
	Filter	CHC Hybrid filter(HEPA+기본)	Ion Cluster
	Filter replacement cycle	Average 6 months	
Electric	Power supply	220V or 110V / 50Hz, 60Hz	
	Power consumption	50W	52W
Capacity	Capacity(ℓ)	Top : 40 / Bottom : 60 (Based on 3 shelves)	
	Option	· Additional shelf	





## Exhaust type

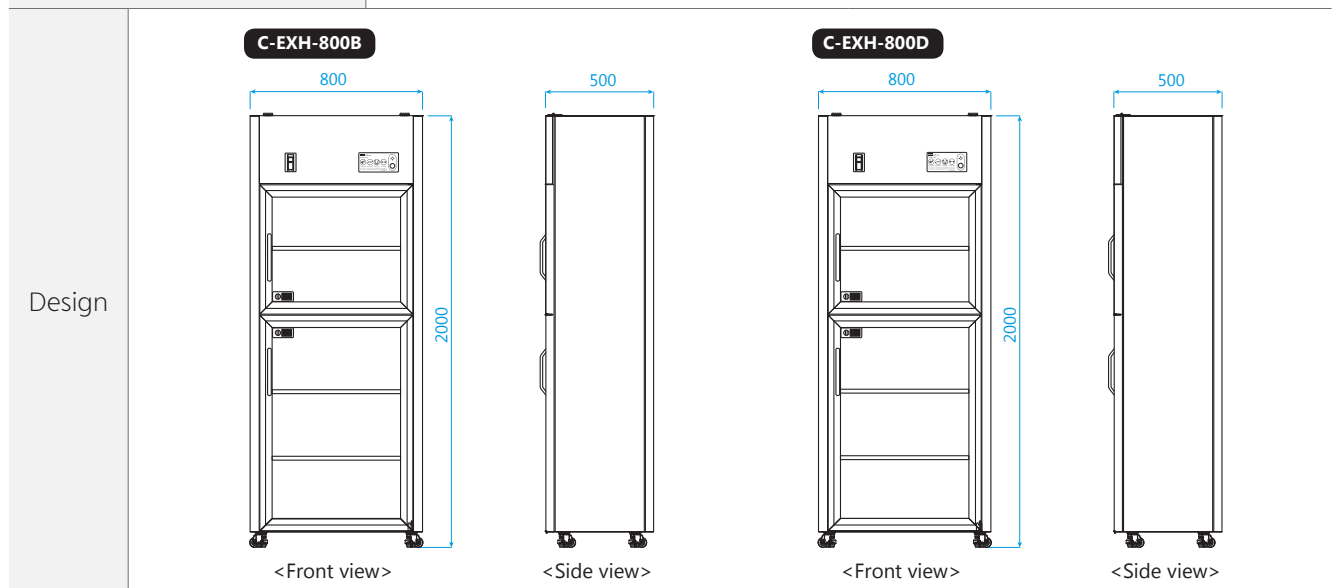


### Airflow

- Hybrid filtered air
- Contaminated air



Category		C-EXH-800B	C-EXH-800D
Dimensions	WxDxH(mm)	800 x 500 x 2000	
Material	Inner / Outer	Inner : Phenolic laminate 4t / Outer : Phenolic laminate 6t	
	Door	Acrylic(Brown color), 5t	
Performance	Wind speed (m/s)	0,45	
	Noise (dB)	46 dB/A	
	Lamp	LED Lamp DC 24V / 18W / 0.75A	
	Fan	Centrifugal fan 28W	X
	Filter	Pre Filter	
Exhaust	Exhaust pipe(φ)	75	
Electric	Power supply	220V or 110V / 50Hz, 60Hz	
	Power consumption	40W	23W
Capacity	Capacity(ℓ)	Top : 40 / Bottom : 60 (Based on 3 shelves)	
	Option	· Additional shelf	



# STORAGE CABINET

Unit : mm

## Storage Cabinet Acrylic Door Type



Width	Depth	Height
600 / 900	450	1800



H-ACAB-600



H-ACAB-900

Width	Depth	Height
600 / 900	450	1800 / 2400



H-ACAB-600C



H-ACAB-900C

## Storage Cabinet Glass Door Type



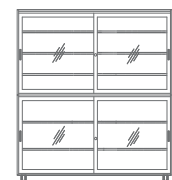
Width	Depth	Height
1200 / 1500 / 1800	450	1800



H-CAB-1200

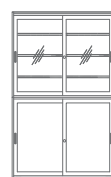


H-CAB-1500

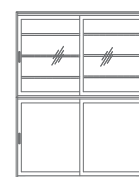


H-CAB-1800

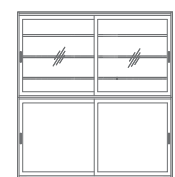
Width	Depth	Height
1200 / 1500 / 1800	450	1800



H-CAB-1200D



H-CAB-1500D



H-CAB-1800D

# SAFETY CABINET

Unit : mm

## Safety Storage Cabinet Double Door



Q90-195-120-WDAC

Width	Depth	Height
1194	615	1954



• Safety Label



## Safety Storage Cabinet Single Door



Q90-195-060-WDAC

Width	Depth	Height
600	615	1954



• Safety Label



## Combi Safety Storage Cabinet



K90-196-120-MF-FWAS

Width	Depth	Height
1200	600	1968



• Safety Label



Left

Right





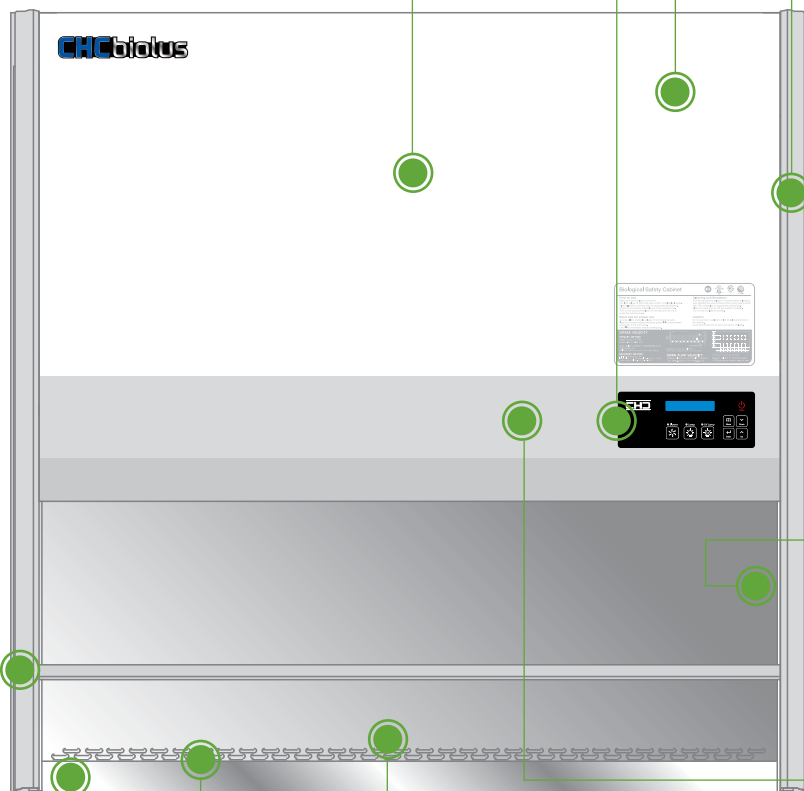
# bioall Products



# BIOSAFETY CABINET

Ensuring perfect containment provides protection for researchers, samples and environments. The high-quality materials used and the modern design make our product one of the best in the market.

High efficiency HEPA Filter ●  
 LCD Digital Display Panel (Microprocessor control) ●



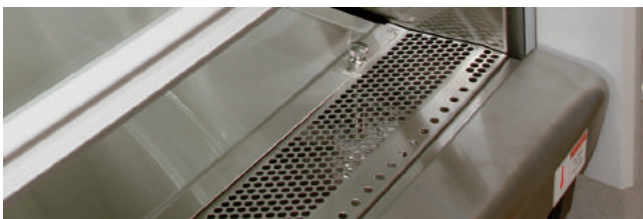
## ● SASH LEVEL Door Alarm

- The built-in sash level alarm function designed for user convenience and safety will alert when the sash level is higher than the one set for safe use.



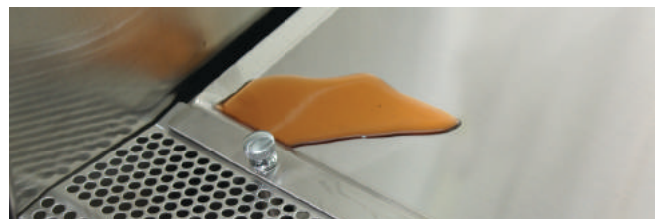
## ● Intake Grille & Armrest

- Wide Intake grille and air holes eliminate the risk of cross contamination, both inside and outside the workbench.
- Wide armrest ensures ergonomic work position.



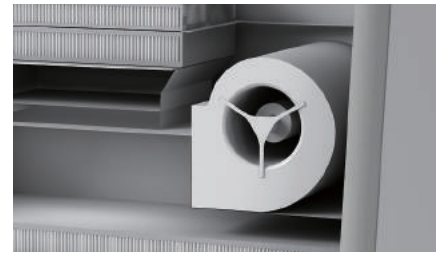
## ● Dished Work Surface

- The raised perimeter single-plate workbench prevents liquid spillage.
- The work surface is easily removeable for easy cleaning and maintenance.



### ● High Performance Blower

- Stable airflow guarantees low noise and vibration-free operation performance with optimal balance and reduced energy consumption.



### ● Ergonomic Design And Double Junction Glass

- The 10-degree tilted ergonomic design of the sash reduces glare allowing a full clear view of the internal chamber.
- 6.38mm laminated double glazing glass(EN 12469 and NSF / ANSI 49 standards certified product)



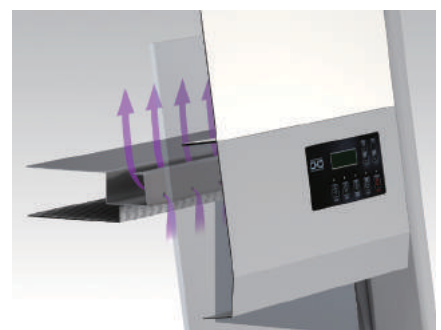
### ● Utilities

- The differential pressure gauge is checked in real-time inside the plenum.
- Basically includes one utility valve as standard, and can be installed up to four.
- The electric sockets provided as standard are 220V with safety covers, located on the left and right sides. They can be changed to 110V upon client's.



### ● Non-Filtered Air Protection Hole™

- Prevents the inflow of contaminated room air into the internal chamber.



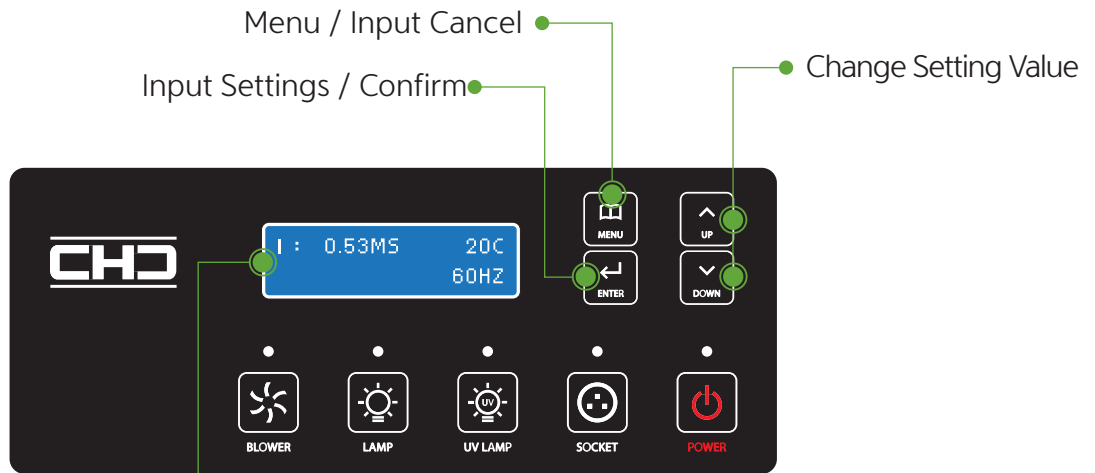
### ● Threshold structure & UV light Leak-free guard

- Armrest and threshold structure ensures that the intake grille's airflow is not obstructed by the user, Completely blocking the UV leakage into the floor gap when the door is closed and the UV lamp is turned on.



## Control System

A single control system enables all BSC operation control such as power ON-OFF, blower ON-OFF, lamp ON-OFF, administrator password setting, timer setting (including UV), warm-up and residual air removal time setting.



### ● LCD Digital Control Panel

- Initial screen displays the incoming wind speed, room temperature and electrical status.
- Alarms functions : Filter to be replaced, indoor temperature too high, electrical failure, filter and UV lamp usage. All alarms can be muted when pushing the MUTE button.
- Warm up timer can be set before work, Post purge can be set after work, and password protection is available for important functions such as administrator mode and settings, to increase safety of operation.
- Easy start sensor is installed to open and close the sash so that the blower and the fluorescent lamp turn on and off automatically

### ● Configurable Features On Screen

<p><b>ADMIN Password</b> 0000</p> <p>Password setting</p>	<p><b>1. Setting</b> <b>2. Timer</b></p> <p>Timer setting</p>
<p><b>1) Warm Up Timer</b> <b>2) Post Purge</b></p> <p>Warm up time and post purge</p>	<p><b>3) UV Timer</b> <b>4) Alarm Timer</b></p> <p>UV and alarm timer setting</p>
<p><b>4) Filter Expire</b> 08000 Hour</p> <p>Filter usage time</p>	

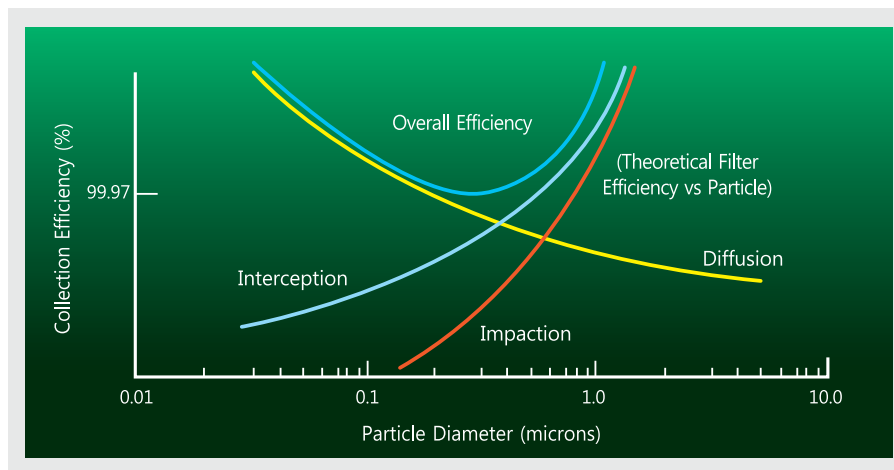
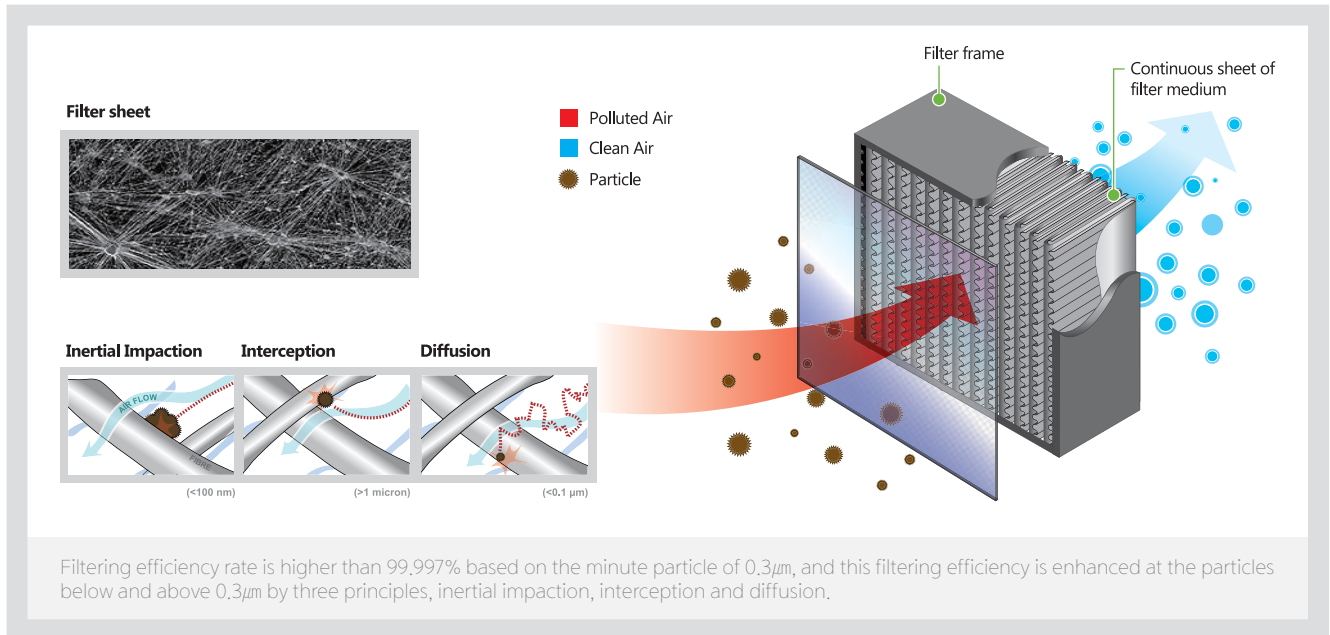
## Paper Trap

A paper Trap is installed to prevent external objects to fall on the work surface or being sucked by the blower into the HEPA filter.





## HEPA filter eliminates the fine particles of 0.3 μm by 99.997%



\* Graph that shows particle interception efficiency of HEPA filter.

### Filteration System

Filtering system consists of one Supply filter and one Exhaust filter. Internationally recognized HEPA filter is applied to ensure performance.

#### Advantages

Low pressure drop
Higher flow rate
Longer operating life
Individually tested according to EN 1822

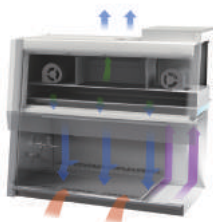
#### Description

Frame	Anodized extruded aluminium
Gasket	Polyurethane endless at inlet
Media	Glass fiber paper
Separator	Hot-melt beads
Sealant	Polyurethane
MPPS efficiency	H14 ≥ : 99.995%
EN 1822 filter class	H14

# PRODUCT LIST

## Class II Type A2 | CHC-111A2

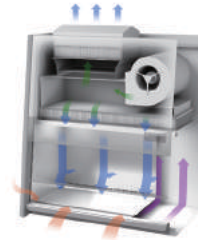
### Airflow



- Room air
- HEPA filtered air
- Contaminated air under negative pressure
- Contaminated air under positive pressure

## Class II Type A2 | CHC-222A2

### Airflow



- Room air
- HEPA filtered air
- Contaminated air under negative pressure
- Contaminated air under positive pressure

Model No.		CHC-111A2	
		04	
Dimensions (mm)	Width	1340	
	Depth	700	
	Height	1360	
Color		White & Gray	
Sash		Tempered safety glass	
Control panel		LCD panel	
Sash level		203 mm (8inch)	
External material		SPCC / AL with epoxy powder coated	
Chamber material		SS 304	
Certification		X	
Avg. inflow velocity		0.25 ~ 0.3 m/s	
Avg. Downflow velocity		0.35 m/s	
Filter efficiency		HEPA filter > 99.997% at 0.3μm	
Noise level (dB A)		< 62	
Nominal exhaust volume		312 CMH	
Power supply		220V, 50/60Hz (110V, 50/60Hz available)	
FL lamp		36W X 2 units	
UV lamp		30W X 1 unit	
Power receptacle		U.S type or Euro type (2EA)	
Utility valve		Vacuum (1 unit)	
Drain valve		Included	
Differential pressure gauge		Included	
Exhaust airflow sensor		Included	
Option		Airtight damper, Hard exhaust connection, Valves(gas, air, water), IV bar	

Support stand	Support frame (Leveling caster)	Height / mm	705
			805

Model No.		CHC-222A2			
		03	04	05	06
Dimensions (mm)	Width	1060	1385	1690	1995
	Depth	810			
	Height	1590			
Color		White & Gray			
Sash		6.38mm Laminated glass			
Control panel		LCD panel			
Sash level		203 mm (8inch)			
External material		SPCC / AL with epoxy powder coated			
Chamber material		SS 304			
Certification		CE	EN, CE	CE	EN, CE
Avg. inflow velocity		0.53 m/s (105fpm)			
Avg. Downflow velocity		0.35 m/s (70fpm)			
Filter efficiency		HEPA filter > 99.997% at 0.3μm			
Noise level (dB)		< 64			
Nominal exhaust volume		358 CMH	484 CMH	602 CMH	720 CMH
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
FL lamp		36W X 2 units			
UV lamp		30W X 1 unit			
Power receptacle		U.S type or Euro type (2EA)			
Utility valve		Vacuum (1 unit)			
Drain valve		Included			
Differential pressure gauge		Included			
Exhaust airflow sensor		Included			
Option		Airtight damper, Hard exhaust connection, Valves(gas, air, water), IV bar			

Support stand	Support frame (Urethane caster)	Height / mm	680
			730

※ SPCC : commercial quality cold rolled steel

## Class II Type A2 | CHC-777A2

### Airflow



- Room air
- HEPA filtered air
- Contaminated air under negative pressure
- Contaminated air under positive pressure

Model No.		CHC-777A2			
		03	04	05	06
Dimensions (mm)	Width	1060	1385	1690	1995
	Depth	810			
	Height	1590			
Color		White & Gray			
Sash		6.38mm Laminated glass			
Control panel		LCD panel			
Sash level		203 mm (8inch)			
External material		SPCC / AL with epoxy powder coated			
Chamber material		SS 304			
Certification		UL, KS	NSF, UL, KS	UL, KS	NSF, UL, KS
Avg. inflow velocity		0.53 m/s (105fpm)			
Avg. Downflow velocity		0.35 m/s (70fpm)			
Filter efficiency		HEPA filter > 99.997% at 0.3μm			
Noise level (dB A)		< 64			
Nominal exhaust volume		358 CMH	484 CMH	602 CMH	720 CMH
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
FL lamp		36W X 2 units			
UV lamp		30W X 1 unit			
Power receptacle		U.S type or Euro type (2EA)			
Utility valve		Vacuum (1 unit)			
Drain valve		Included			
Differential pressure gauge		Included			
Exhaust airflow sensor		Included			
Option		Airtight damper, Hard exhaust connection, Valves(gas, air, water), IV bar			

Support stand	Support frame (Urethane caster)	Height / mm	738
			838

## Class II Type B2 | CHC-888B2

### Airflow



- Room air
- HEPA filtered air
- Contaminated air under negative pressure

Model No.		CHC-888B2	
		04	06
Dimensions (mm)	Width	1385	1995
	Depth	810	
	Height	1825	
Color		White & Gray	
Sash		6.38mm Laminated glass	
Control panel		LCD panel	
Sash level		203 mm (8inch)	
External material		SPCC / AL with epoxy powder coated	
Chamber material		SS 304	
Certification		NSF, UL	
Avg. inflow velocity		0.53 m/s (105fpm)	
Avg. Downflow velocity		0.32 m/s (65fpm)	0.30 m/s (60fpm)
Filter efficiency		HEPA filter > 99.997% at 0.3μm	
Noise level (dB A)		< 64	
Nominal exhaust volume		1390 CMH	2092 CMH
Power supply		220V, 50/60Hz (110V, 50/60Hz available)	
FL lamp		36W X 2EA	
UV lamp		30W X 1EA	
Power receptacle		U.S type or Euro type (2 units)	
Utility valve		Vacuum (1 unit)	
Drain valve		Included	
Differential pressure gauge		Included	
Duct (Ø)		250 / Option(200/300)	
Hard exhaust connection		Included	
Airtight damper		Included	
Exhaust airflow sensor		Included	
Option		Valves(gas, air, water), IV bar	

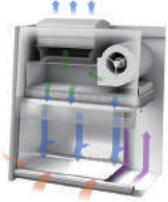
Support stand	Support frame (Urethane caster)	Height / mm	738
			838

※ SPCC : commercial quality cold rolled steel

# Class II Type A2 NB-704/706

Bioall's Bio Safety Cabinet ensures perfect containment providing protection for researchers, samples and environment. The high-quality materials used and the modern design make our product one of the best in the market.

30% Exhaust



**Air Flow**

- Room Air
- ULPA filtered air
- Contaminated air under negative pressure
- Contaminated air under positive pressure



**High efficiency ULPA Filter**

**High performance blower (ECM Motor)**

Reduced noise / energy consumption with optimal balance of stable airflow (DC motor)

**LCD Touch control panel**

Easy to operate with the constant voltage touch screen

**LED Lamp**

Energy Saving / Extended Lifetime

**One piece design**

Anti-germ seamless stainless steel chamber with rounded corners



		NB-704		NB-706		
Dimensions (mm)	External	W x D x H(mm)	1330 x 755 x 1600		1940 x 755 x 1600	
	Internal	'WxDx'H(mm)	1220 x 620 x 700		1830 x 620 x 700	
		Color	White & Gray			
		sash	6.38mm Laminated glass			
		Control Panel	Touch Screen panel			
		Sash level (mm)	203 (8inch)			
Material	External	SPCC / Epoxy powder coated				
	Chamber	SS 304				
Performance	Certification	UL, KS J 0012				
	Avg. Inflow/Downflow Velocity	0.53 m/s (105fpm) / 0.30 m/s (60fpm)				
	Filter Efficiency	ULPA filter > 99.9999% at 0.12µm				
	Noise Level (dB A)	< 64				
	Nominal Exhaust volume	484 m³/h		720 m³/h		
Electricity	Power Supply	220V, 50/60Hz (Option: 110V, 50/60Hz)				
	LED lamp	15W x 2 units				
	UV Lamp / Power Receptacle	30W x 1 unit / U.S type or Euro type (2 units)				
	Power Consumption (220V/110V)	3A, 660W / 3A, 330W		4A, 880W / 4A, 440W		
Valve	Utility valve	Vacuum (1 unit)				
	Drain valve assembly	Included				
Exhaust	Exhaust Airflow Sensor	Included				
Others	Differential Pressure Gauge	Included				
Options	· SS IV bar · Additional service valves (gas, air, water) · SS 316 Internal materials · Hard Exhaust connection					

Support stand	Support frame (Urethane caster)	Height / mm	675
			775



# LAMINAR FLOW CABINET

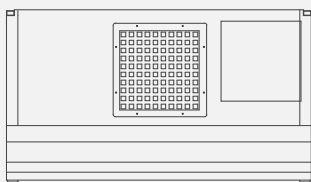
Provides product protection from airborne particulates and cross contamination. Available with horizontal or vertical laminar flow, provide a HEPA-filtered environment.



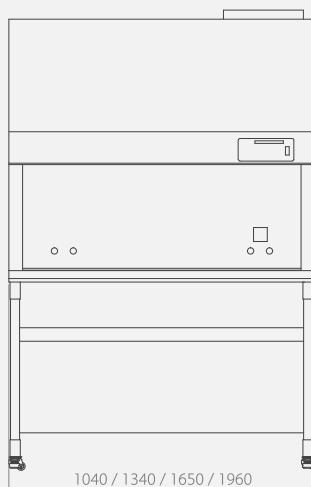
## Design

### CLB-201 & CLB-201S

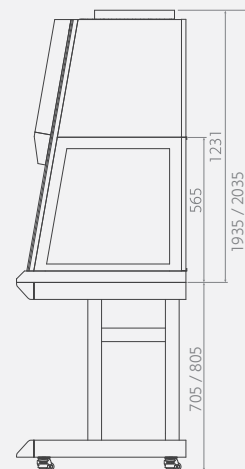
Width	1040/ 1340/ 1650/ 1960mm
Depth	742mm
Height	1230mm
Frame height (Leveling caster)	705/805mm



<Top View>

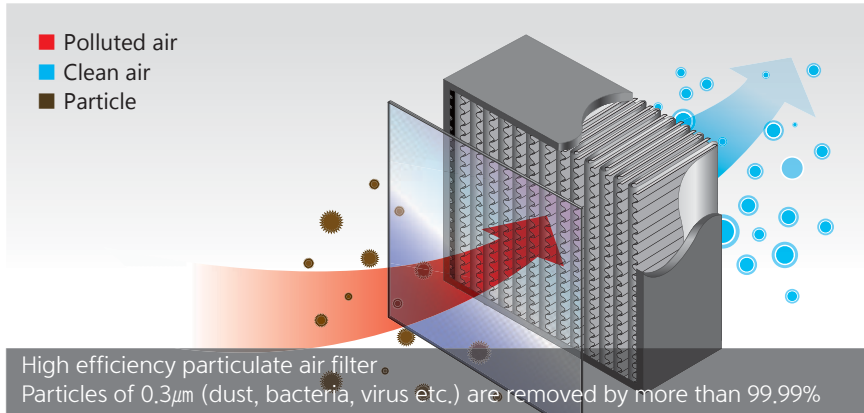


<Front View>

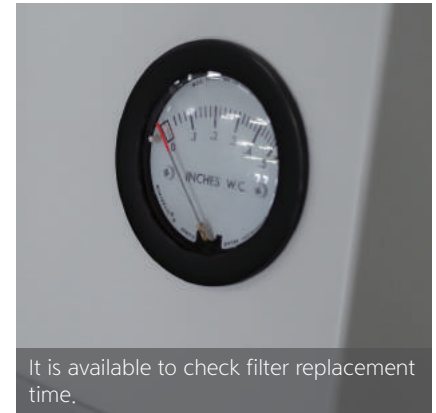


<Side View>

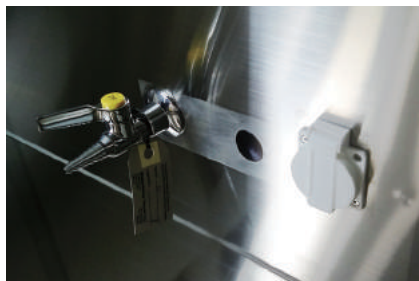
### HEPA filter



### Differential pressure gauge



### Electrical receptacle & Utility valve



Conveniently allocated inside the work chamber. Electrical socket provided with protection cover for safety. Up to four valves can be installed.

### Leveling caster



Allows easy movement of the cabinet and perfect leveling. Improves load capacity safe break function.

### LCD control panel



Full controlling functions display.

## Laminar flow cabinet and Biological safety cabinet differences

#### By usage purpose

Laminar flow cabinet provides only product protection for the researcher.  
 Biological safety cabinet provides personnel, product and environment protection

#### By airflow

##### Laminar flow cabinet

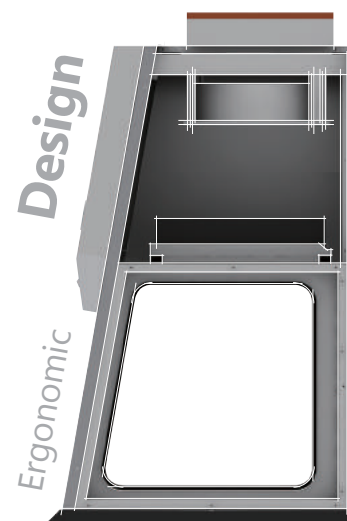
Clean air through HEPA filter flows inside the chamber and protects products from contaminated air.

##### Biological safety cabinet

70% of the airflow at workspace is re-circulated through the HEPA Filter and 30% of it is exhausted to the outside through HEPA filter, and the polluted airflow is not leaked as it is perfectly surrounded by the negative pressure.

#### By product

The product classified as BSL 1, harmless to human will be treated in laminar flow cabinet, and the product classified as BSL 2 or 3, high risk to human will be treated in biological safety cabinet.



# PRODUCT LIST

## Vertical Laminar Flow Cabinet



### Airflow



- Room air
- HEPA filtered air

Model No.		CLB-201			
		03	04	05	06
Dimensions (mm)	Width	1040	1340	1650	1960
	Depth	742			
	Height	1230			
Color		White & Gray			
Sash		Tempered safety glass (5mm)			
Control panel		LCD panel			
External material		SPCC / AL with epoxy powder coated			
Worktop		SS 304			
Certification		CE			
Avg. Downflow velocity		0.3~0.4 m/s (Variable set speed)			
Filter efficiency		HEPA filter > 99.995% at 0.3μm			
Pre-filter		Nylon filter			
Noise level (dB A)		≤ 65			
Safety alarm		UV timer			
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
FL lamp		36W X 1EA		36W X 2EA	
UV lamp		20W X 1EA	30W X 1EA		
Power receptacle		U.S type or Euro type (1EA)		U.S type or Euro type (2EA)	
Utility valve		Vaccum(1 unit)			
Differential pressure gauge		Included			
Option		Utility hole, Valves(gas, air, water)			

Support stand	Support frame (Leveling caster)	Height / mm	705
			805

## Vertical Laminar Flow Cabinet



### Airflow



- Room air
- HEPA filtered air

Model No.		CLB-201S			
		03	04	05	06
Dimensions (mm)	Width	1040	1340	1650	1960
	Depth	742			
	Height	1230			
Color		White & Gray			
Sash		Tempered safety glass (5mm)			
Control panel		LCD panel			
External material		SPCC / AL with epoxy powder coated			
Worktop		SS 304			
Certification		CE			
Avg. Downflow velocity		0.3~0.4 m/s (Variable set speed)			
Filter efficiency		HEPA filter > 99.995% at 0.3μm			
Pre-filter		Nylon filter			
Noise level (dB A)		≤ 65			
Safety alarm		UV timer			
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
FL lamp		36W X 1EA		36W X 2EA	
UV lamp		20W X 1EA	30W X 1EA		
Power receptacle		U.S type or Euro type (1EA)		U.S type or Euro type (2EA)	
Utility valve		Vaccum(1 unit)			
Differential pressure gauge		Included			
Option		Utility hole, Valves(gas, air, water)			

Support stand	Support frame (Leveling caster)	Height / mm	705
			805

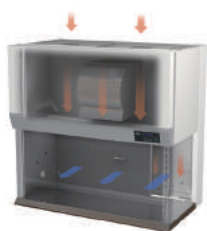
※ SPCC : steel plate cold commercial



## Horizontal Laminar Flow Cabinet



### Airflow



- Room air
- HEPA filtered air



Model No.		CLB-202D			
		03	04	05	06
Dimensions (mm)	Width	1040	1340	1650	1960
	Depth	800			
	Height	1300			
Color		White & Gray			
Sash		Tempered safety glass (5mm)			
Control panel		LCD panel			
External material		SPCC / AL with epoxy powder coated			
Worktop		SS 304			
Certification		CE			
Avg. Downflow velocity		0.3~0.4 m/s (Variable set speed)			
Filter efficiency		HEPA filter > 99.995% at 0.3μm			
Pre-filter		Nylon filter			
Noise level (dB A)		≤ 65			
Safety alarm		UV timer			
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
FL lamp		36W X 1EA		36W X 2EA	
UV lamp		20W X 1EA	30W X 1EA		
Power receptacle		U.S type or Euro type (2EA)			
Utility valve		Vaccum(1 unit)			
Differential pressure gauge		Included			
Option		Utility hole, Valves(gas, air, water)			

Support stand	Support frame (Leveling caster)	Height / mm	705
			805

## PCR Workstation



### Airflow



- Room air
- HEPA filtered air



Model No.		CLB-060		CLB-060F	
		03	04	03	04
Dimensions (mm)	Width	900	1200	900	1200
	Depth	665			
	Height	975			
Color		White & Gray			
Sash		Polycarbonate 8mm(Front polding sash)			
Control panel		Touch screen panel			
External material		SPCC / AL with epoxy powder coated			
Worktop		Phenolic laminate 19mm			
Support stand		None		Included	
Certification		CE			
Avg. Downflow velocity		0.3~0.4 m/s (Variable set speed)			
Filter efficiency		HEPA filter > 99.995% at 0.3μm			
Pre-filter		Nylon filter			
Noise level (dB A)		≤ 65			
Safety alarm		UV timer			
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
LED lamp		12W X 1EA			
UV lamp		15W X 1EA			
Power receptacle		U.S type or Euro type (1EA)			
Utility valve		None			
Utility hole		Included			
Differential pressure gauge		None			

Support stand	Support frame (Leveling caster)	Height / mm	720
			820

※ SPCC : steel plate cold commercial

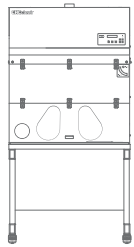
# DUCTLESS FUME HOOD

Represents the optimal solution for old buildings where adjustments on services and exhaust connections are more difficult. The transparent acrylic material used on the 3 sides ensures increased visibility.

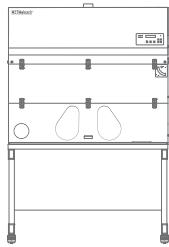


**Airflow**

- Room air
- Fume (gas, vapor)
- Clean air



<CLE-051F-03>



<CLE-051F-04>



Model No.		CLE-051		CLE-051F	
		03	04	03	04
Dimensions (mm)	Width	900	1200	900	1200
	Depth	665			
	Height	1025			
Sash		Polycarbonate 8mm(Front polding sash)			
Control Panel		Touch screen panel			
External material		SPCC / AL with epoxy powder coated			
Support stand		None		Included	
Worktop		Phenolic laminate 19mm			
Power supply		220V, 50/60Hz (110V, 50/60Hz available)			
Noise level (dB A)		≤ 65			
Carbon filter	Organic	Fume(gas, vapor) from organic solvents			
	Acid gas	Fume(gas, vapor) from acids			
Support Stand (Leveling caster)		None		720 mm	
				820 mm	
Option		Water tap, Cupsink, HEPA Filter			

Maintains a Safe Refrigeration Temperature

# LAB REFRIGERATOR

Equipment for precise temperature control and maintenance that fulfills a variety of storage requirements for industrial, clinical and scientific applications.



**LCD Touch display controller**

**LED Lamp**  
Optimum visibility

**Shelf**  
Simple installation and removal system to adjust shelves easily

**Double tempered glass**  
glass temperature ensures stability and reduces heat loss

**Leveling casters**  
Level adjustment with integrated lock



B-REF-120S

Model No.		B-REF-060S	B-REF-120S
Dimensions (mm)	WxDxH(mm)	653 x 800 x 1914	1280 x 800 x 1914
Material	Capacity(L)	445	960
	Door	1EA	2EA
	Shelves	4EA	8EA
	Control Panel	Touch screen panel	
	External/Internal	Stainless steel	
	Door	Tempered glass door	
	Handle	AL handle(Black)	
	Insulator	HCFC-141b High-density urethane insulation	
	Refrigerant/ Dose	R-134a	
		120g	150g
Shelf	Perforated Stainless steel 0.8mm (Load 35kg/ea)		
Performance	Temperature range / control unit(°C)	1~10 / ±0.1	
	Cooling system	Indirect cooling system	
	Cooling Fan	4W,Ø150 / 1 unit	4W,Ø150 / 2 units
	Defrost heater (Cross bar & Body)	36±5W	70±5W
	Noise	<60dB	
	LED Lamp	20W x 1 unit	20W x 2 units
Electricity	Power Supply	220V 50/60Hz, 110V 50/60Hz	
	Power Consumption	257W	405W
Others	Weight (Kg)	106	162

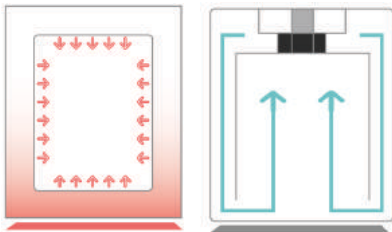
# CO<sub>2</sub> INCUBATOR

Incubator ensures the optimal cell growth creating “IN VI TRO” conditions, and reducing experimental variability. Increased security helps to reduce the loss of time caused by contamination.

## Main Feature

- Touch LCD control panel
- Accurate temperature maintenance
- Non-dispersion dual beam IR sensor
- Internal reinforced glass door
- Internal circulation system

## Internal Circulation System



Model No.		bioall-180CA	bioall-180CS
Dimensions (mm)	Overall	WxDxH(mm) 633 x 634 x 965	
	Chamber	WxDxH(mm) 540 x 500 x 680	
Certification		CE	
Capacity(L)		180	
Color		White	
Door	External	SPCC, Silicone magnet door	
	Internal	Tempered safety glass	
Control panel		Touch screen panel	
Shelves		3 units (Adjustable)	
Fan		Internal convection fan	
Material	External	SPCC with epoxy powder coated	
	Internal	Stainless steel	
Shakey		None	Included
Humidification		Up to 95% RH at 37°C	
CO <sub>2</sub> accuracy		± 0.1% to 5%	
CO <sub>2</sub> range		0~20%	
CO <sub>2</sub> sensor		Dual-beam non dispersive infra-red sensor	
Temperature range		Ambient +5°C to 50°C	
Temperature accuracy		± 0.1°C to 37°C	
Temperature control		Digital PID controller	
Temperature sensor		Resistance temperature detector (R.T.D)	
Heating system		Air jacket heating system	
Safety device		Exclusive over temp. protector	
Power		AC 220V(110V), 50/60Hz, 1phase, 4A	
Weight		102 Kg	
Option		RS-485 Communication Port, Print Support, CO <sub>2</sub> Gas Regulator, Comport Cable, Software	



# Reference Projects

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# chalab showroom

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