

The background of the entire page is a repeating pattern of stylized icons representing laboratory furniture. These icons include various types of chairs, benches, and fume hoods, arranged in a grid-like fashion across the entire surface.

CHC LAB

LABORATORY FURNITURE

CleAir®
FUME HOOD

Ver.1.0 Advanced Laboratory System CHC LAB Catalog

ADVANCED LABORATORY SYSTEM



COMPANY OVERVIEW

CHC LAB Co., Ltd., since the establishment in 1996, has been developing its own technology as a manufacturer of laboratory furniture, fume hood and laboratory equipment. After CHC LAB being registered as a SEFA (Scientific Equipment and Furniture Association) member in 2007 for the first time in Korea, Biological Safety Cabinet was certified by KS standard of Korea in 2008, and by NSF/ANSI standard 49 of USA in 2009, thus paved the way to enter the world science equipment industry market.

CHC LAB has been supplied to various laboratories such as government-invested organizations, education, pharmacy, medical, chemistry, cosmetics, bio-engineering, and food area etc., based on the accumulated technology power to perform the whole process of a laboratory layout, design, production, installation and validation.

CHC LAB will grow as a specialized company of lab-safety technology which is sustainable for more than a hundred years through the development of design and eco-friendly technology that can lead the world lab-safety technology.



CEO MESSAGE

How can safety be provided?

How can reliable quality be assured?

Endless concern about safety was the beginning of the CHC LAB.

The laboratory furniture, fume hood, biological safety cabinet of CHC LAB which you will experience now will help you realize your research will safely on the endless change and innovation

The technology and quality which have been cultivated by us together with you with an unusual tenacity for safety will not be changed for more than 100 years to be opened from now on.

We would like to ask you observe with constant interest and faith the next 100 years' journey of CHC LAB to be newly spread for the establishment of the safety of researchers and laboratories.





COMFORT

Ergonomic design enables researchers to focus on the research comfortably under any research environment as it is designed to reduce the burden on the body of the researchers who stay in the laboratory for a long time. The module system can create the optimum research environment within a short time when re-arrangement is necessary such as researcher substitution or research purpose.

What is ergonomic research environment?



To be equipped with the ergonomic
research environment means to perform the
efficient researches.



Personal Research Activities Area

Personal research activities areas are divided even at an open type laboratory where various members exist. space arrangement for the psychological independence is helpful for the improvement of research performance by increasing the research concentration rate.

Universal design & Ergonomics

- CHC LAB is pursuing the universal design which can be used fairly and freely by anybody regardless of the differences in their abilities and personalities of each individual such as age, sex, nationality, language, handicapped or not etc.

The ergonomics based product creates an independent research space as it is designed to be flexibly modified by researchers according to their physical conditions and environment.

It is very important for the reproducibility of a research to set up and maintain the bench well, as the laboratory bench is the same as your house.

- Kathy Barker -

<Source: Kathy Barker, At the Bench, 2005>

- In order to do an experiment safely, a clean space with a width of at least 600mm is needed, where nothing is located. In order to progress various kinds of test actively, devices and equipment that are frequently used should be arranged with this space as the center.



Lab design & Consulting

CHC LAB suggests the healthy and pleasant research environment taking the balance of customer's convenience and safety regulation as well as the individual characteristics of actual research work into consideration.



Pleasant and efficient laboratory system

»» Working process



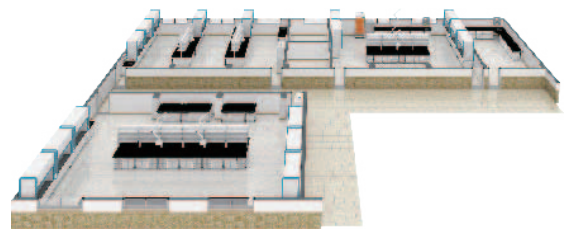
Laboratory layout design & 3D rendering



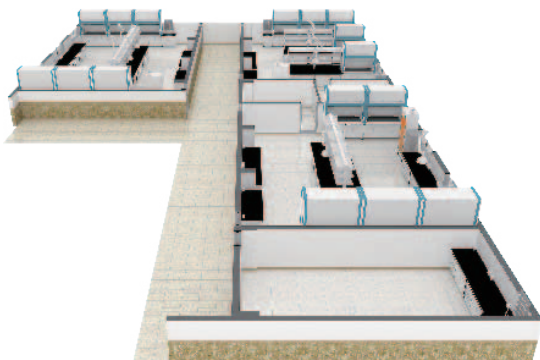
Floor plan



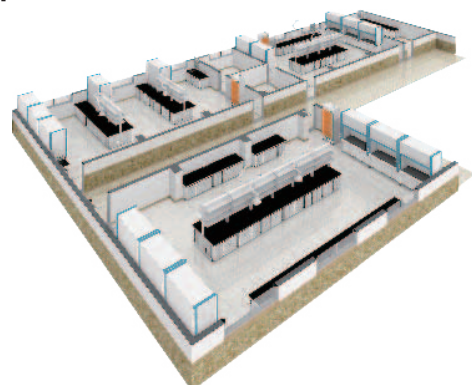
Front view

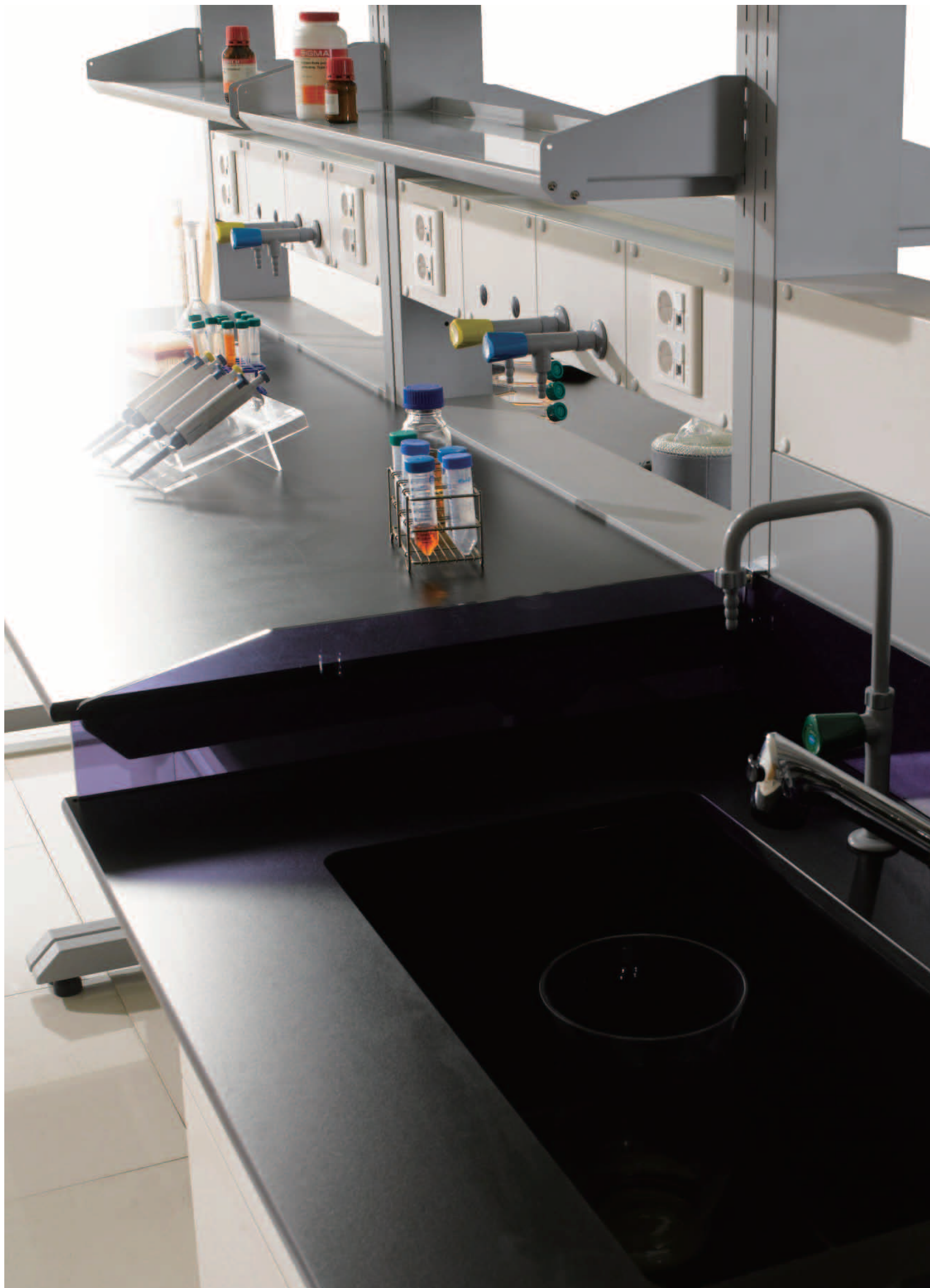


Side view



Perspective view







Premium Lab Table

Premium laboratory furniture

Laboratory Furniture System

CHC LAB's laboratory furniture creates an efficient customized environment through the modularization based on the safety. The simple line design that matches any laboratory space well directs a safe and pleasant test space.



● Providing safety of researchers and laboratory

Prevention is the most important factor in safety. Laboratory furniture system should secure the performance which could eliminate the danger factors that had not yet been perceived by researchers when the research facility was established.

CHC LAB manufactures the equipment and facility of which safety and quality were verified through the SEFA-8 test method and quality control.

● Construction Know-how on the optimized research environment

Degree of completion and economics of the product are assured through the abundant consulting experiences meeting various requirement levels with respect to research facility construction project, and the professional staff per each field of all process such as production, installation, and After Service.

● Securing the reliability of research performance

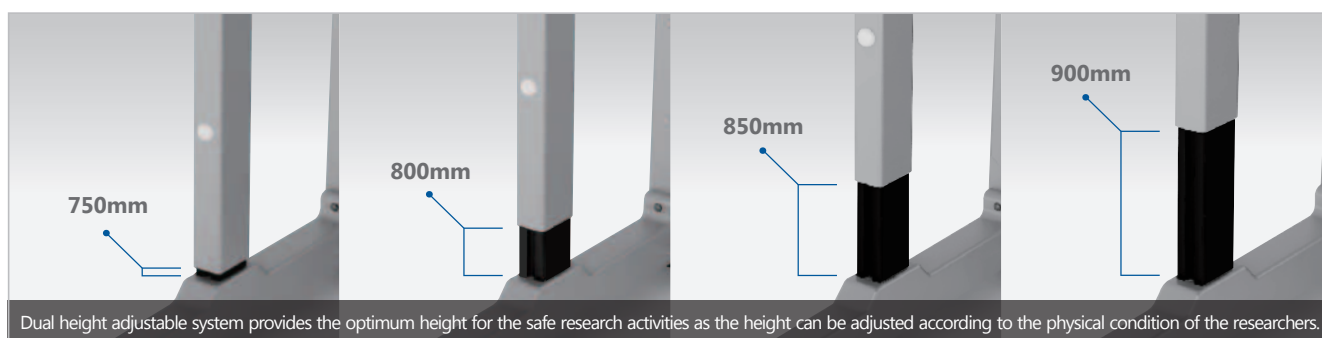
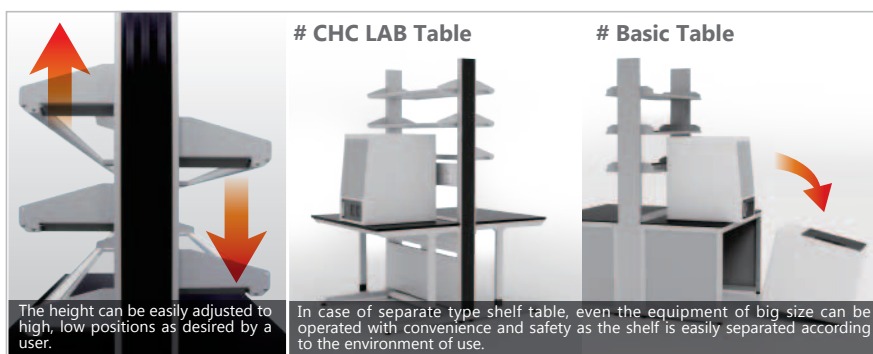
Most laboratories have the safety regulation on the establishment and operation of the research facilities to secure the reliability of the research performance.

The laboratory whose research facility is well set up, improves the reliability of the research performance by improving the safety and test reproducibility.

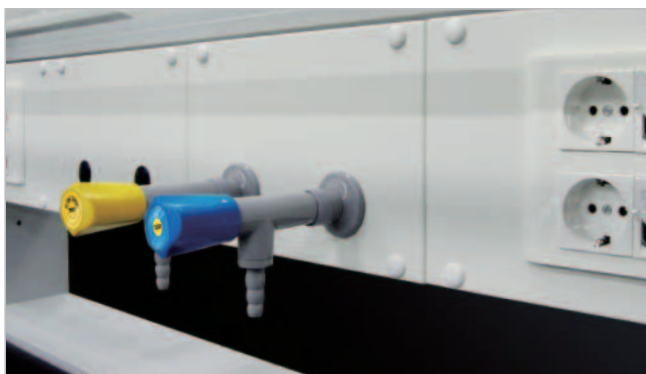
• Dual height adjustable system

Once below! Once above!

Dual height adjustable system enables not only to arrange the sizable experiment equipment but also to store the reagent bottles of various sizes with convenience and safety by adjusting the height of a shelf.

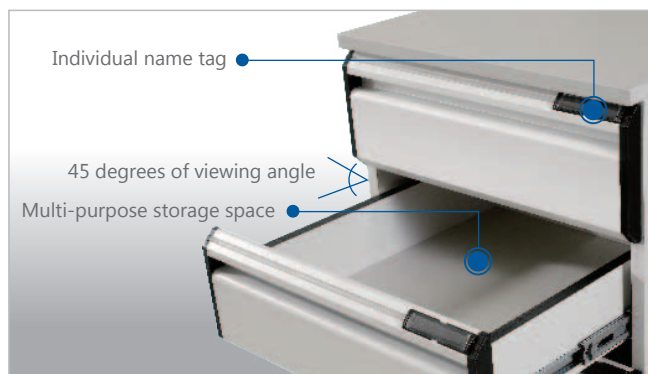


• Utility box



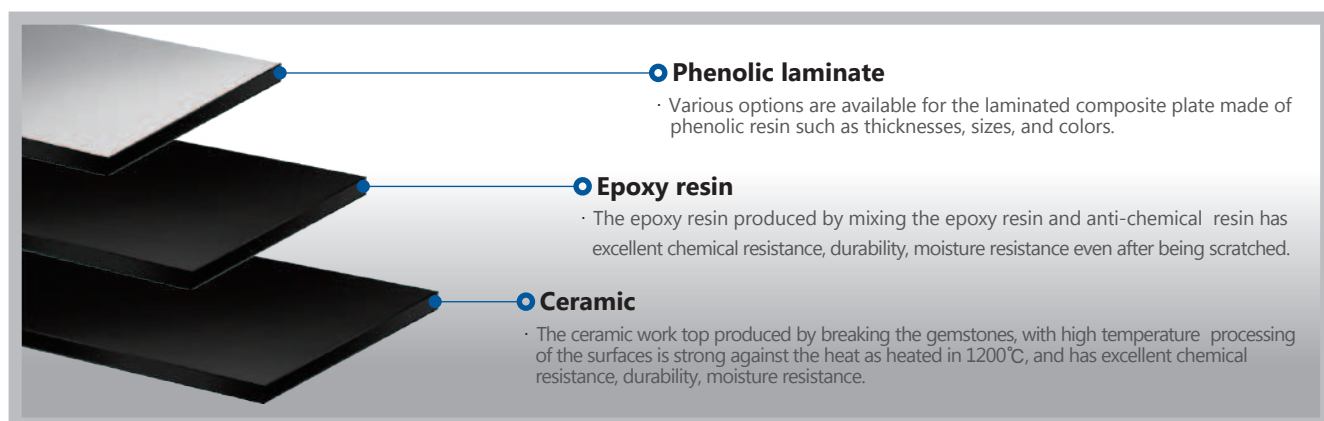
Laboratory system can be constructed efficiently with the utility box as the combination of various units (water supply, gas cock, electrical receptacle, LAN port etc.) is available according to the users requirements.

• Individual name tag drawer



45 degrees inclined name tag is available to check name easily while the researcher is standing.

• Worktop type



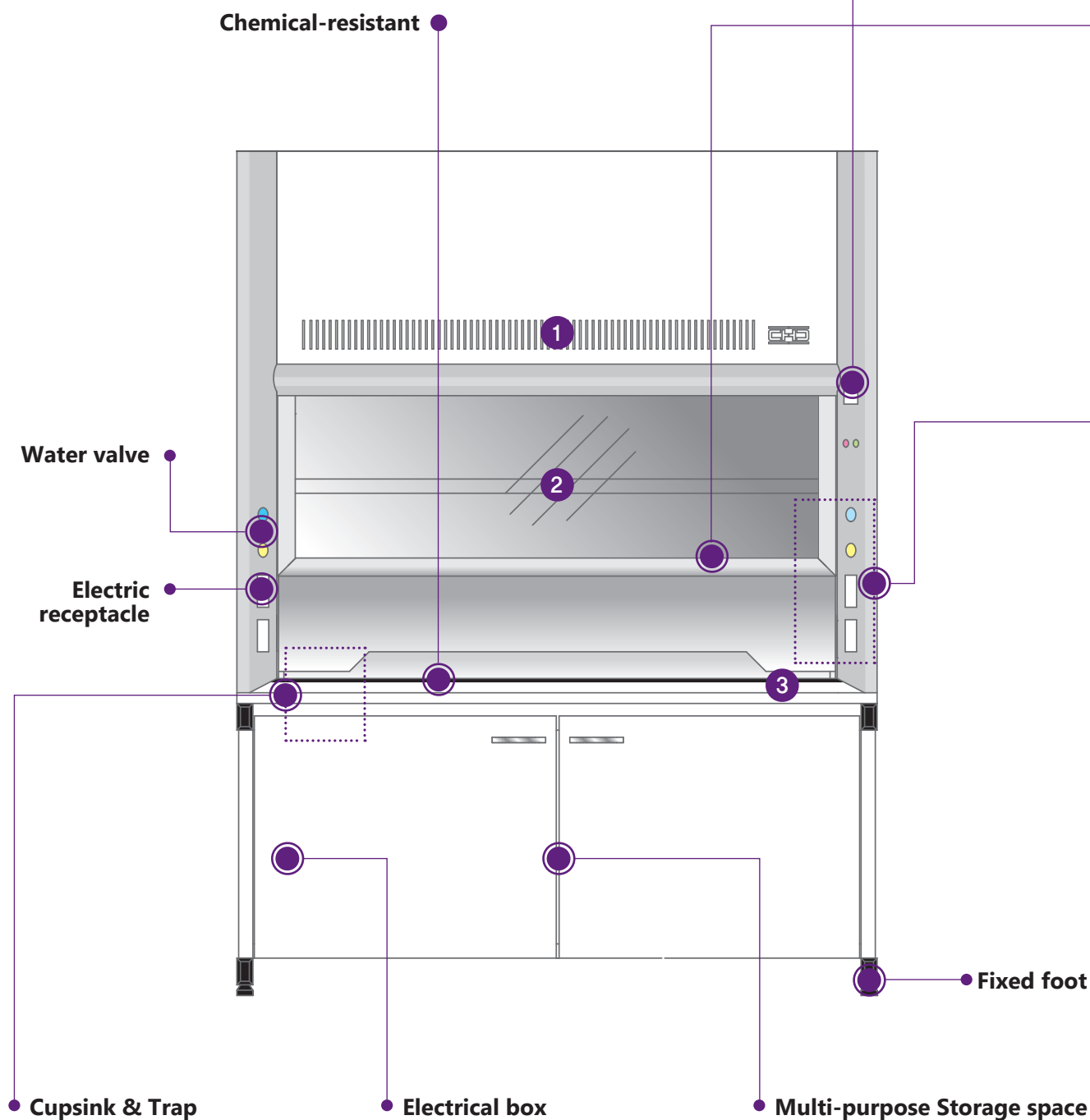




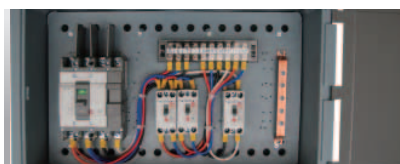
EFFICIENCY

Exhaust system equipment is an essential equipment to secure the safety of the researchers as well as the laboratory from the harmful substances and contaminated gas which are emitted during the research process. Operation of the efficient and pleasant research facility is supported as the aerodynamic technology is applied for the stable maintenance of proper air amount together with the energy saving.

CleAir® Fume Hood



- Cupsink with highly resistance against acid, alkali etc.



- It contains circuit breakers against over-current and various electrical devices to control in general.



- Multi-purpose storage space is provided as equipped with a cabinet of wide storage space.

● Air velocity monitor Option

- Energy saving effect can be expected as the quick monitoring of the air amount is available in accordance with the change of air velocity by the opening and closing of the door, and it helps to improve the Amenity of a Laboratory.



● Large sight glass sash structure



- Large sight glass sash structure provides wider view for the researcher to eliminate the danger in advance that can be generated during the test.

● Expendable utility system with easy maintenance

- Various utilities can be provided in accordance with the research purpose and environment of use by attaching the valves at both sides of the pillar, and cocks at both sides of the inside.
- Safety gas valve eliminates the possibility of accident by the careless or malfunctions.
- Access holes at left and right interior side are able to provide easy maintenance.



1 Bypass

- The internal pressure is lowered in case the door is closed as the bypass structure design is applied.

2 Baffle

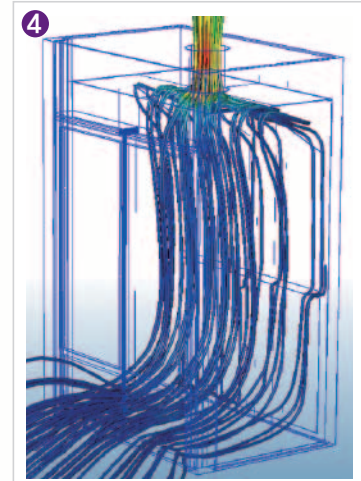
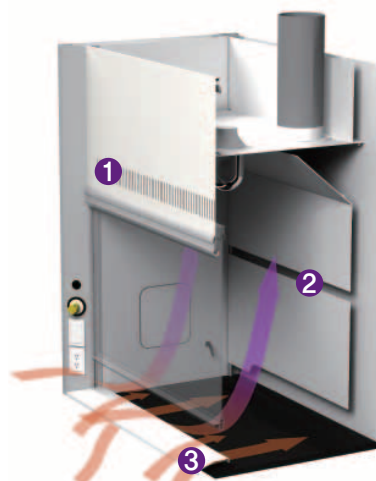
- It is designed in baffle structure which emits the air inside the chamber to the outside effectively.

3 Ergonomic airfoil structure

- CHC Lab's airfoil structure secures the safety of researchers by preventing the concentration of the noxious gas due to the eddy current at the front area of the fume hood, and the gas leakage to the outside of the chamber.

4 Computational fluid dynamics

- It is designed as the optimum structure for the energy saving of the ventilation system consumed at time of fume hood operation, and the perfect emission of the noxious gas generated during the test, through the computational fluid dynamics (CFD) simulations.



Fume Hood CLE-101

Bypass Air Type



Airflow

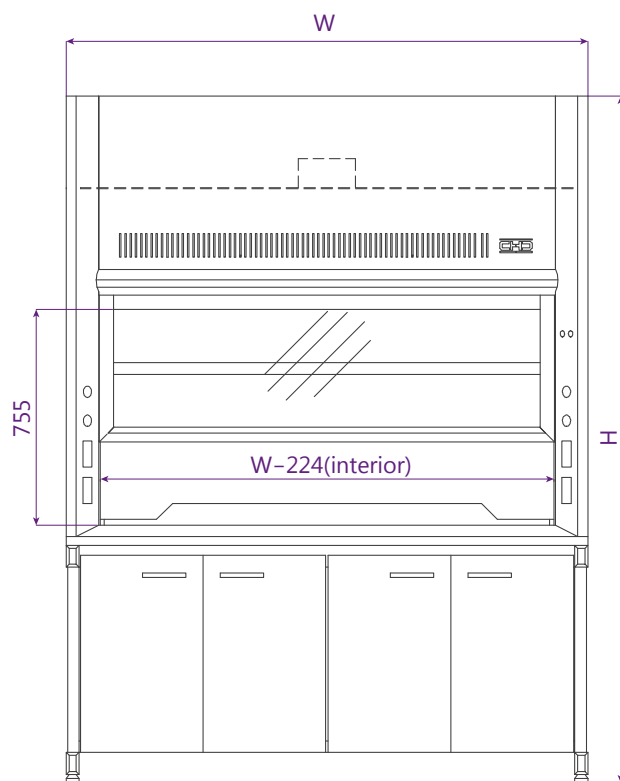
- Room air
- Contaminated air under negative pressure

General specification			Model No.	CLE-101				
			04	05	06	07	08	
Dimension & Features	Exterior	W /mm	1200	1500	1800	2100	2400	
		D /mm	860					
		H /mm	2370					
	Color		Gray					
	Door		Up/Down sliding door type					
	Airfoil		Steel plate 1.6t with epoxy powder coated					
	Glass		Tempered safety glass					
	Cabinet & Cabinet door		LPM PB / 2 door	LPM PB / 4 door				
	P.P resin & drain		1EA			2EA		
	Material	External		Phenolic laminate 6t & Aluminum structure				
Chamber		Phenolic laminate 4t						
Support stand		75 X 45 X 1.4t sq pipe, epoxy powder coated						
Interior material (worktop)		Ceramite 30mm						
Door sash		Aluminum						

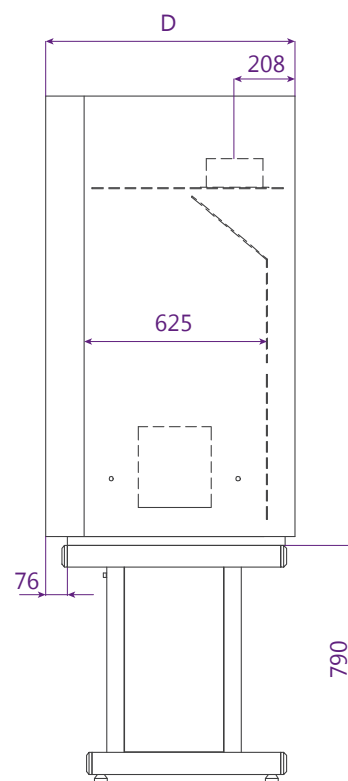
※ P.P : Polypropylene

Unit : mm

W : Width D : Depth H : Height



⊕ Front view



⊕ Side view

General specification		Model No.	CLE-101				
		04	05	06	07	08	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA		110V - 2EA / 220V - 2EA			
	FL lamp	36W x 1EA			36W x 2EA		
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	1EA			2EA		
	Water	1EA			2EA		
	Air, Vaccum	Option					
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Option		Utility valve(air, vacuum), Support frame(Stainless steel 304 rack), Additional receptacle Air velocity monitor, Blower					

※ FL lamp : Explosion proof lamp with three band radiation

※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-106

Air Curtain Type

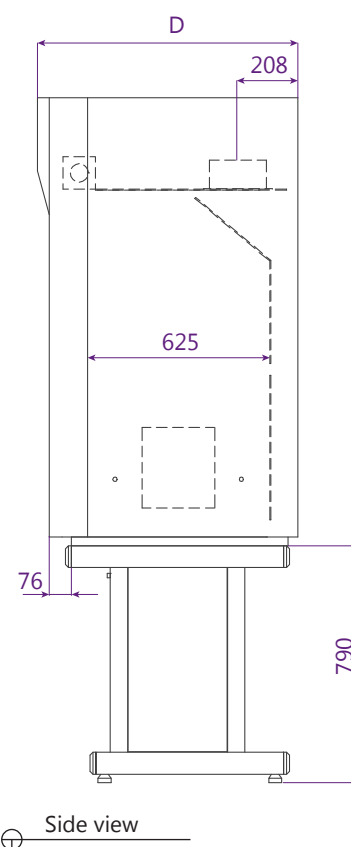
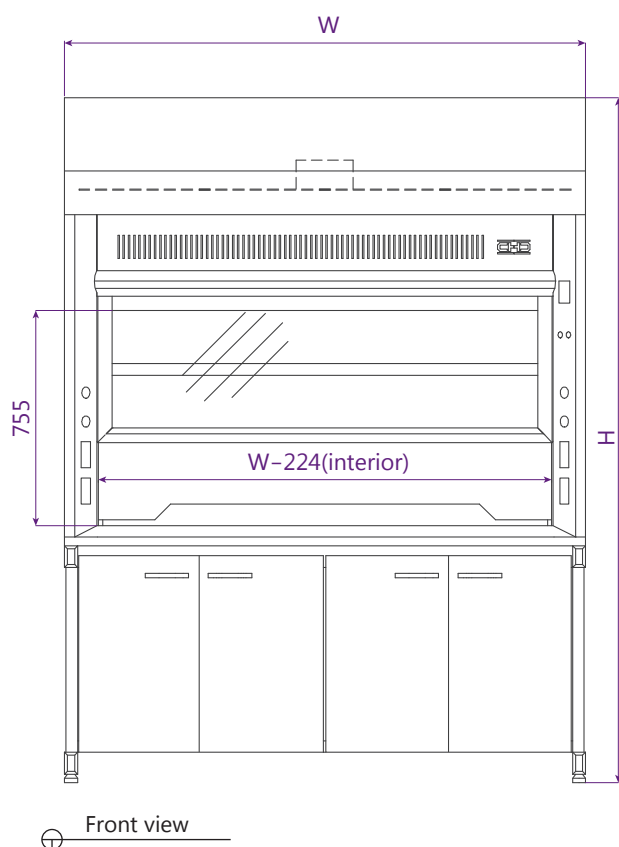


General specification			Model No.	CLE-106				
			04	05	06	07	08	
Dimension & Features	Exterior	W /mm	1200	1500	1800	2100	2400	
		D / mm	880					
		H /mm	2370					
	Color		Gray					
	Door		Up/Down sliding door type					
	Airfoil		Steel plate 1.6t with epoxy powder coated					
	Glass		Tempered safety glass					
	Cabinet & Cabinet door		LPM PB / 2 door	LPM PB / 4 door				
	P.P resin & drain		1EA			2EA		
	Material	External		Phenolic laminate 6t & Aluminum structure				
Chamber		Phenolic laminate 4t						
Support stand		75 X 45 X 1.4t sq pipe, epoxy powder coated						
Interior material (worktop)		Ceramite 30mm						
Door sash		Aluminum						

※ P.P : Polypropylene

Unit : mm

W : Width D : Depth H : Height



General specification		Model No.	CLE-106				
		04	05	06	07	08	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA		110V - 2EA / 220V - 2EA			
	FL lamp	36W x 1EA			36W x 2EA		
	Air curtain fan	1EA (motor power 34W)			2EA (motor power 34W)		
	Air curtain fan switch	ON / OFF					
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	1EA			2EA		
	Water	1EA			2EA		
	Air, Vacuum	Option					
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Etc	Fan	O					
Option		Utility valve(air, vacuum), Support frame(Stainless steel 304 rack), Additional receptacle, Blower					

※ FL lamp : Explosion proof lamp with three band radiation

※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-107

Auxiliary Air Type

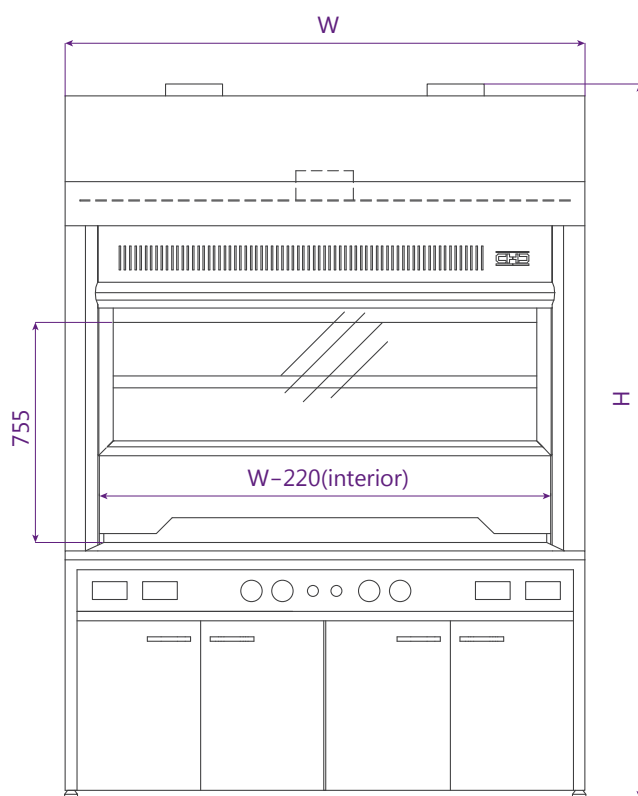


General specification			Model No.	CLE-107				
			04	05	06	07	08	
Dimension & Features	Exterior	W /mm	1200	1500	1800	2100	2400	
		D /mm	807					
		H /mm	2450					
	Color		Gray					
	Door		Up/Down sliding door type					
	Airfoil		X					
	Glass		Tempered safety glass					
	Cabinet & Cabinet door		LPM PB / 2 door	LPM PB / 4door				
	P.P resin & drain		1 EA			2 EA		
	Material	External		Steel plate, epoxy powder coated				
Chamber		Phenolic laminate 4t						
Support stand		75 X 45 X 1.4t sq pipe epoxy powder coated						
Interior material (worktop)		Ceramite 30mm						
Door sash		Stainless steel 304						

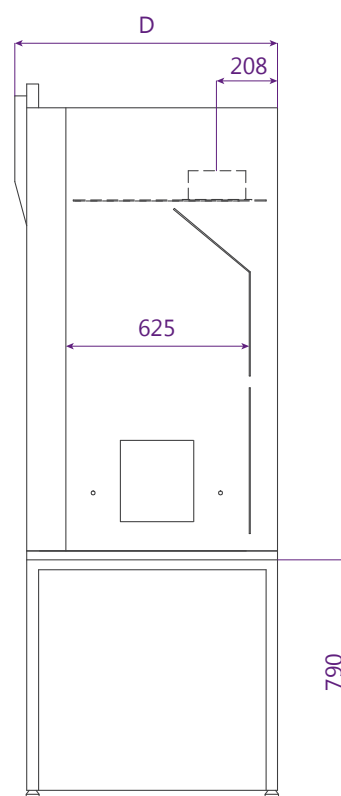
※ P.P : Polypropylene

Unit : mm

W : Width D : Depth H : Height



⊕ Front view



⊕ Side view

General specification		Model No.	CLE-107				
		04	05	06	07	08	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA		110V - 2EA / 220V - 2EA			
	FL Lamp	36W x 1EA			2EA		
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	1 EA			2 EA		
	Water	1 EA			2 EA		
	Air, Vaccum	Option					
Ventilation	Exhausted air collar Ø	200Ø / 250Ø / 300Ø					
	Supplied air collar 150Ø	O					
	Blower	Option					
Option		Utility valve(air, vacuum) Support frame(Stainless steel 304 rack), Additional receptacle, Blower					

※ FL lamp : Explosion proof lamp with three band radiation

※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-109

Low Work-in Type

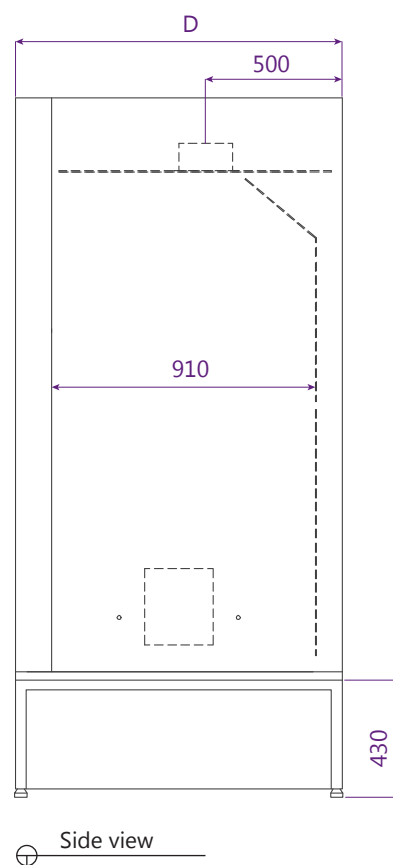
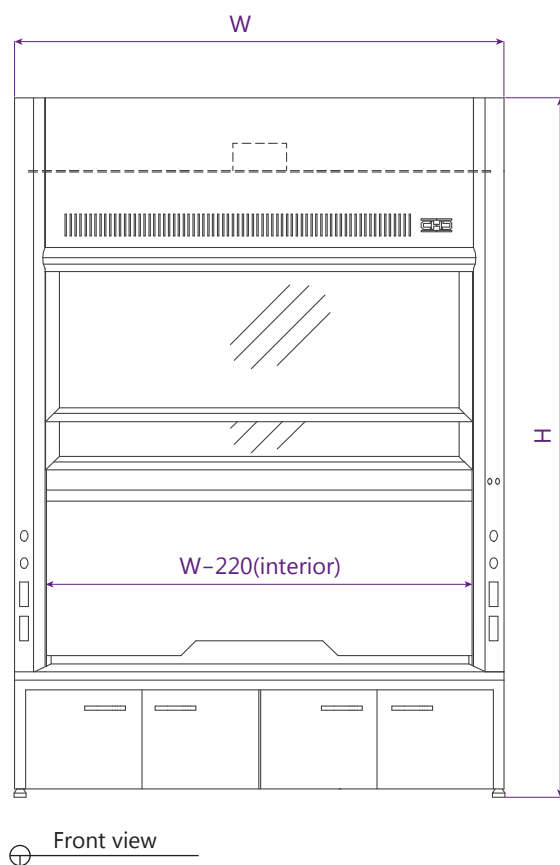


General specification			Model No.	CLE-109				
			06	08	12	18	24	
Dimension & Features	Exterior	W / mm	1800	2400	3600	5400	7200	
		D / mm	1200					
		H / mm	2700					
	Color		Gray					
	Door		Up/Down sliding door type					
	Airfoil		X					
	Glass		Tempered safety glass					
	Cabinet & Cabinet door		LPM PB / 4 door		LPM PB / 4 door x 2	LPM PB / 4 door x 3		
	P.P resin & drain		2EA					
	Material	External		Steel plate & Aluminum structure, eopxy powder coated				
Chamber		Phenolic laminate 4t						
Support stand		40 X 40 X 1.2t sq, pipe epoxy powder coated						
Interior material (worktop)		Phenolic laminate						
Door sash		Aluminum						

※ P.P : Polypropylene

Unit : mm

W : Width D : Depth H : Height



General specification		Model No.	CLE-109				
		06	08	12	18	24	
Electrical	Power receptacle	110V - 2EA / 220V - 2EA			Selectable		
	FL lamp	1EA	2EA		3EA	4EA	
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	1 EA					
	Water	2 EA					
	Air	1EA					
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Option		Utility valve (vacuum), Support frame(Stainless steel 304 rack), Additional receptacle, Blower					

※ FL lamp : Explosion proof lamp with three band radiation
 ※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-110

Walk-in Type



Airflow

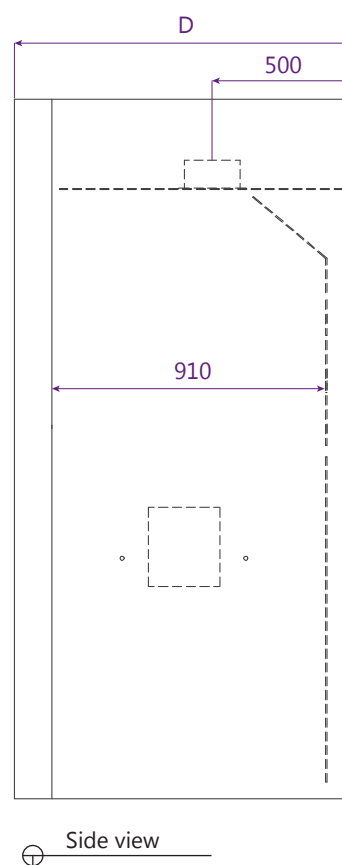
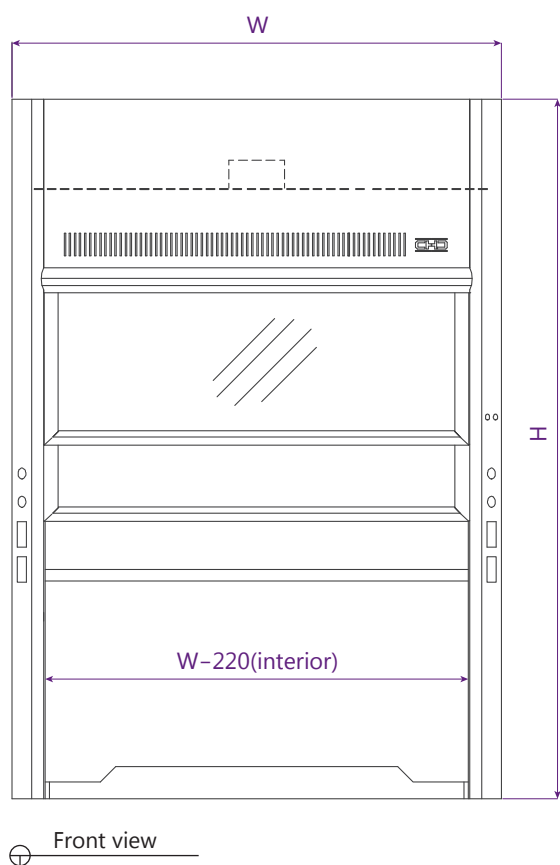
- Room air
- Contaminated air under negative pressure



General specification			Model No.	CLE-110				
			06	08	12	18	24	
Dimension & Features	Exterior	W /mm	1800	2400	3600	5400	7200	
		D /mm	1200					
		H /mm	2700					
	Color		Gray					
	Door		Up/Down sliding door type					
	Airfoil		X					
	Glass		Tempered safety glass					
	Cabinet & Cabinet door		X					
	P.P resin & drain		1EA			Selectable		
	Material	External		Steel plate & Aluminum structure, eopxy powder coated				
Chamber		Phenolic laminate 4t						
Support stand		X						
Interior material (worktop)		X						
Door sash		Aluminum						

※ P.P : Polypropylene

Unit : mm

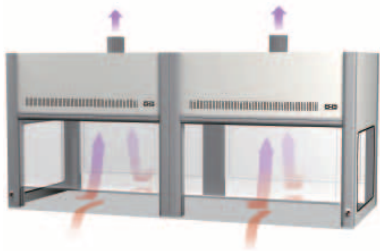
W : Width **D** : Depth **H** : Height

General specification		Model No.	CLE-110				
		06	08	12	18	24	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA / Three-phase 1EA			Selectable		
	FL lamp	1EA	2EA		3EA	4EA	
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	1EA		Selectable			
	Water	2EA		Selectable			
	Air	1EA		Selectable			
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Option		Utility valve (vacuum), Additional receptacle, Blower					

※ FL lamp : Explosion proof lamp with three band radiation
 ※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-120

Center Tabletop Type



Airflow

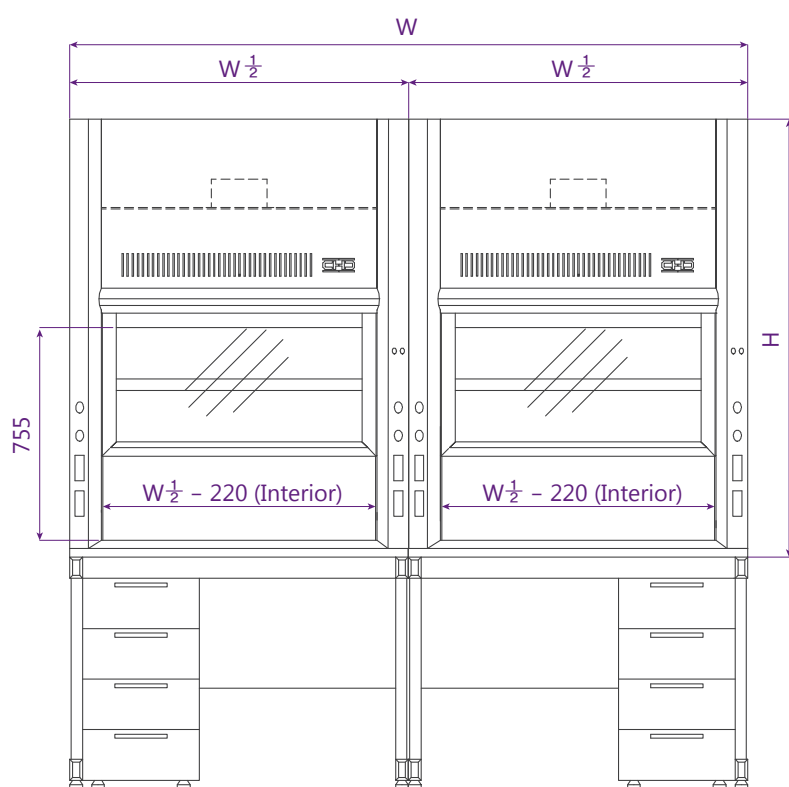
- Room air
- Contaminated air under negative pressure



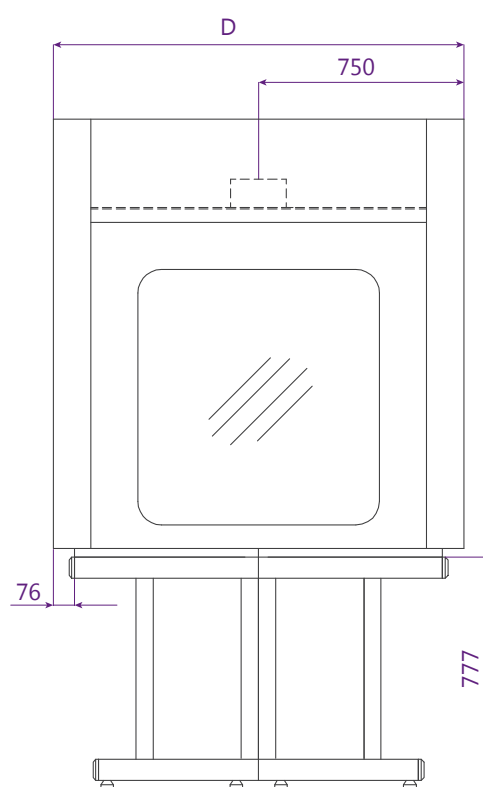
※ Option : Table, Drawer

General specification			Model No.				
			CLE-120				
Dimension & Features	Exterior	W / mm	1800	2400	3000	3600	4200
		D / mm	1500				
		H / mm	1600				
	Color		Gray				
	Door		Up/Down sliding door type / Side window				
	Airfoil		X				
	Glass		Tempered safety glass				
	Cabinet & Cabinet door		X				
	P.P resin & drain		X				
Material	External		Steel plate & Aluminum structure, eopxy powder coated				
	Chamber		Phenolic laminate 6t				
	Support stand		X				
	Interior material (worktop)		X				
	Door sash		Aluminum				

Unit : mm

W : Width **D** : Depth **H** : Height

⊕ Front view



⊕ Side view

General specification		Model No.	CLE-120				
		06	08	10	12	14	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA					
	FL lamp	2EA	4EA				
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	X					
	Water	X					
	Air, Vaccum	X					
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Option		220V/110V(selectable), Support frame(Stainless steel 304 rack), Additional receptacle, Blower					

※ FL lamp : Explosion proof lamp with three band radiation

※ Power receptacle : 220V/110V (selectable)

Fume Hood CLE-121

Side Tabletop Type



Airflow

- Room air
- Contaminated air under negative pressure

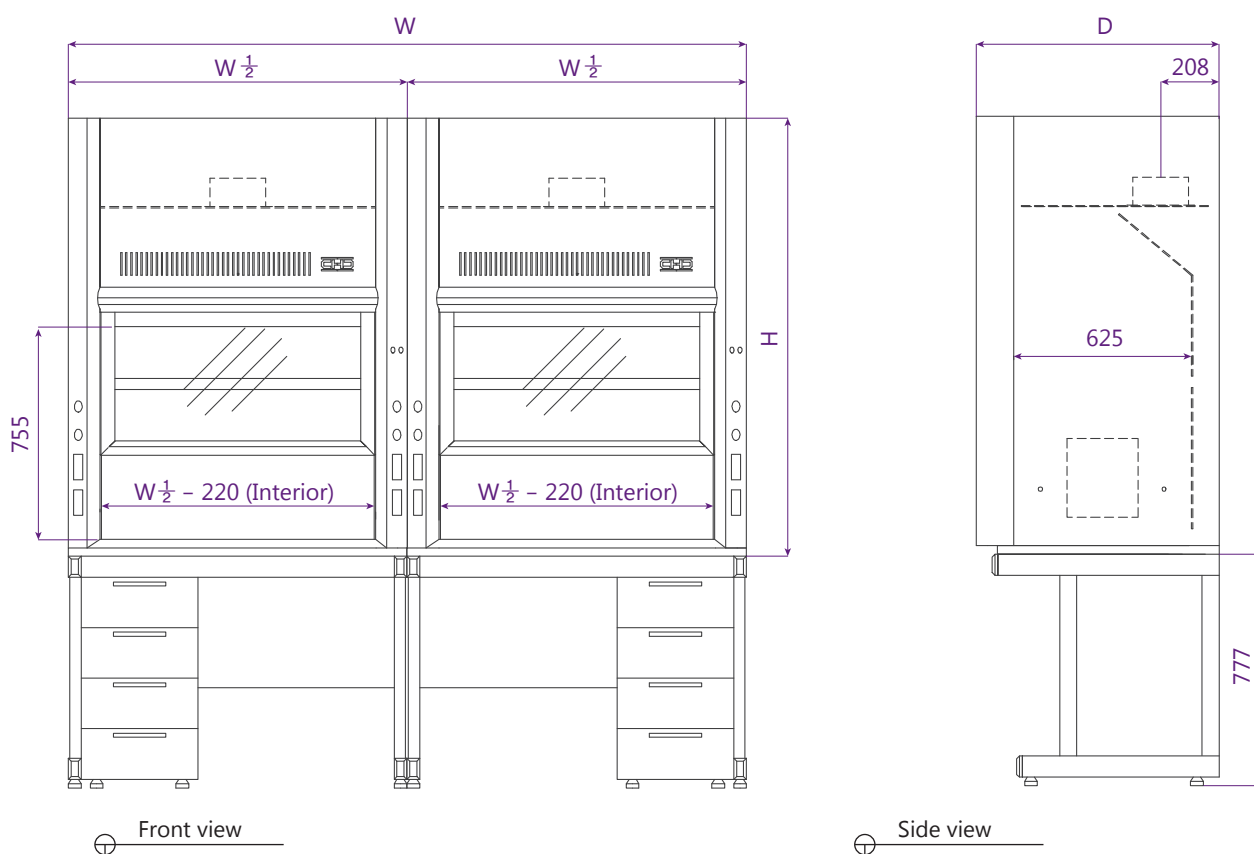


※ Option : Table, Drawer

General specification			Model No. CLE-121				
			04	05	06	07	08
Dimension & Features	Exterior	W / mm	1200	1500	1800	2100	2400
		D / mm	750				
		H / mm	1600				
	Color		Gray				
	Door		Up/Down sliding door type / Side window				
	Airfoil		X				
	Glass		Tempered safety glass				
	Cabinet & Cabinet door		X				
	P.P resin & drain		X				
Material	External		Steel plate & Aluminum structure, eopxy powder coated				
	Chamber		Phenolic laminate 4t				
	Support stand		X				
	Interior material (worktop)		X				
	Door sash		Aluminum				

Unit : mm

W : Width D : Depth H : Height



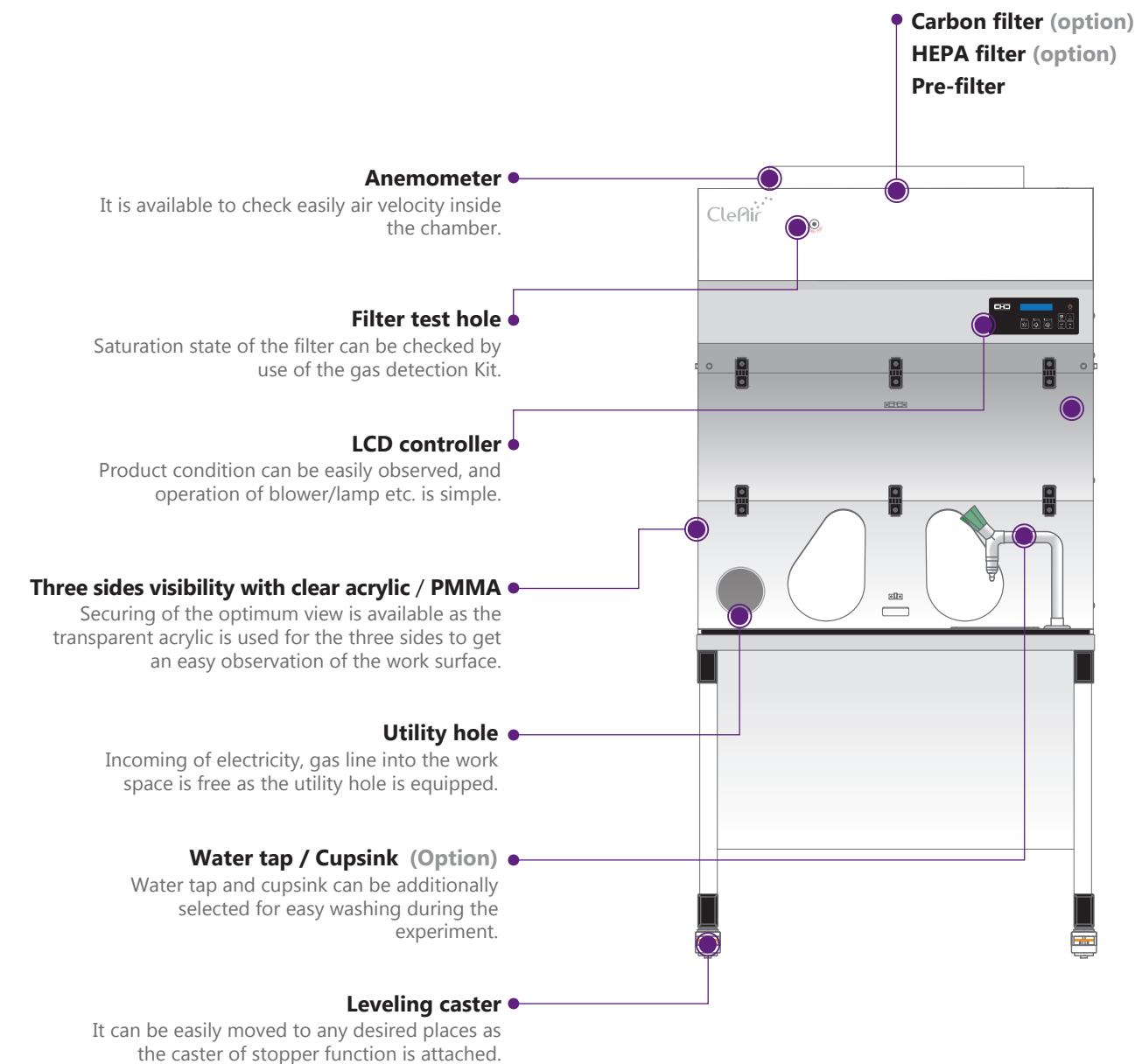
General specification		Model No.	CLE-121				
		04	05	06	07	08	
Electrical	Power receptacle	110V - 1EA / 220V - 1EA					
	FL lamp	1EA			2EA		
	Lamp switch	ON / OFF					
	Blower switch	ON / OFF					
	Electrical box	O					
Valve	Gas	X					
	Water	X					
	Air	X					
Ventilation	Collar Ø	200Ø / 250Ø / 300Ø					
	Blower	Option					
Option		220V/110V(selectable), Support frame(Stainless steel 304 rack), Additional receptacle					

※ FL lamp : Explosion proof lamp with three band radiation
 ※ Power receptacle : 220V/110V (selectable)

Freely movable

DUCTLESS

FUME HOOD



• **Carbon filter type**

Type	Applications
Organic filter	Fume(gas, vapor) from organic solvents
Acid gas filter	Fume(gas, vapor) from acids



CLE-051, CLE-051F

Ductless Fume Hood



CLE-051F-03



Airflow

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



General specification			Model No.		CLE-051		CLE-051F	
					03	04	03	04
Dimension	Exterior	W/mm			900	1200	900	1200
		D/mm			660	660	660	660
		H/mm			1100	1100	1970	1970
	Interior	'W/mm			884	1184	884	1184
		'D/mm			625	625	625	625
		'H/mm			730	730	730	730

※ CLE-051 excludes the support stand.

3-Point polyarticular Armhood

● **CLE-001-05** (Material : PP)

The armhood of polyarticular structure protects researchers and environment from the contaminated substances through the quick emission of the contaminated air generated at the local experiment place.

● **CLE-020**

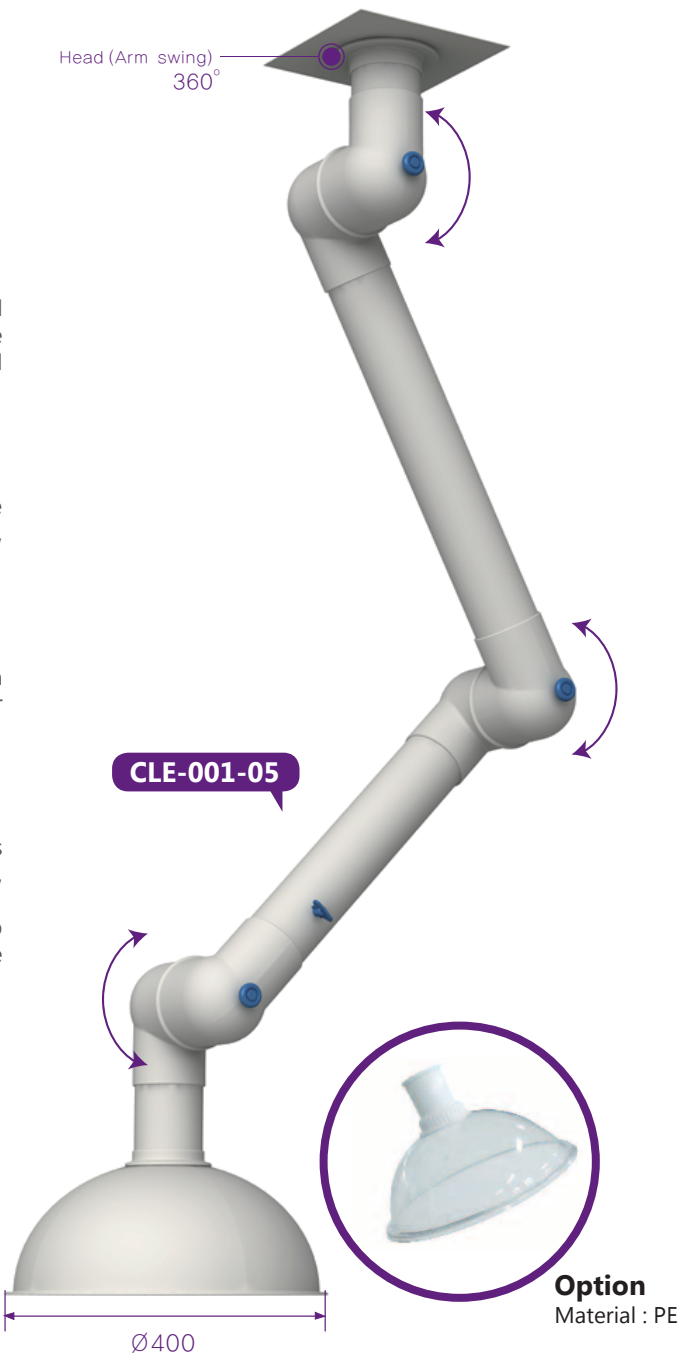
The movable armhood is used by attaching the armhood to the filter box emits clean air after the noxious substances are filtered, and the air velocity can be adjusted with the controller.

● **CLE-040**

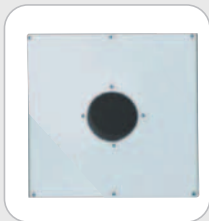
Noxious gas generated at local places are emitted outside through a duct, and observation of the work place is convenient as the four sides are made of transparent acrylic (PMMA).

● **CLE-030 (Filter box)**

Movable type filter box emits clean air after the noxious substances are filtered through the multi filtering system; carbon, HEPA, pre-filter the filtering system in the shape of cartridge. It is used by being connected to the armhood freely movable up and down, left and right, or by connecting a wrinkled hose to the balance work surface (SBWS) and the autopsy surface (STWS).



● **Bracket**



Ceiling Type

○ **Specification**

Model No.	WxDxT (mm)
CLE-006	300 x 300 x 2.0



Roof Type

○ **Specification** (Custom design)

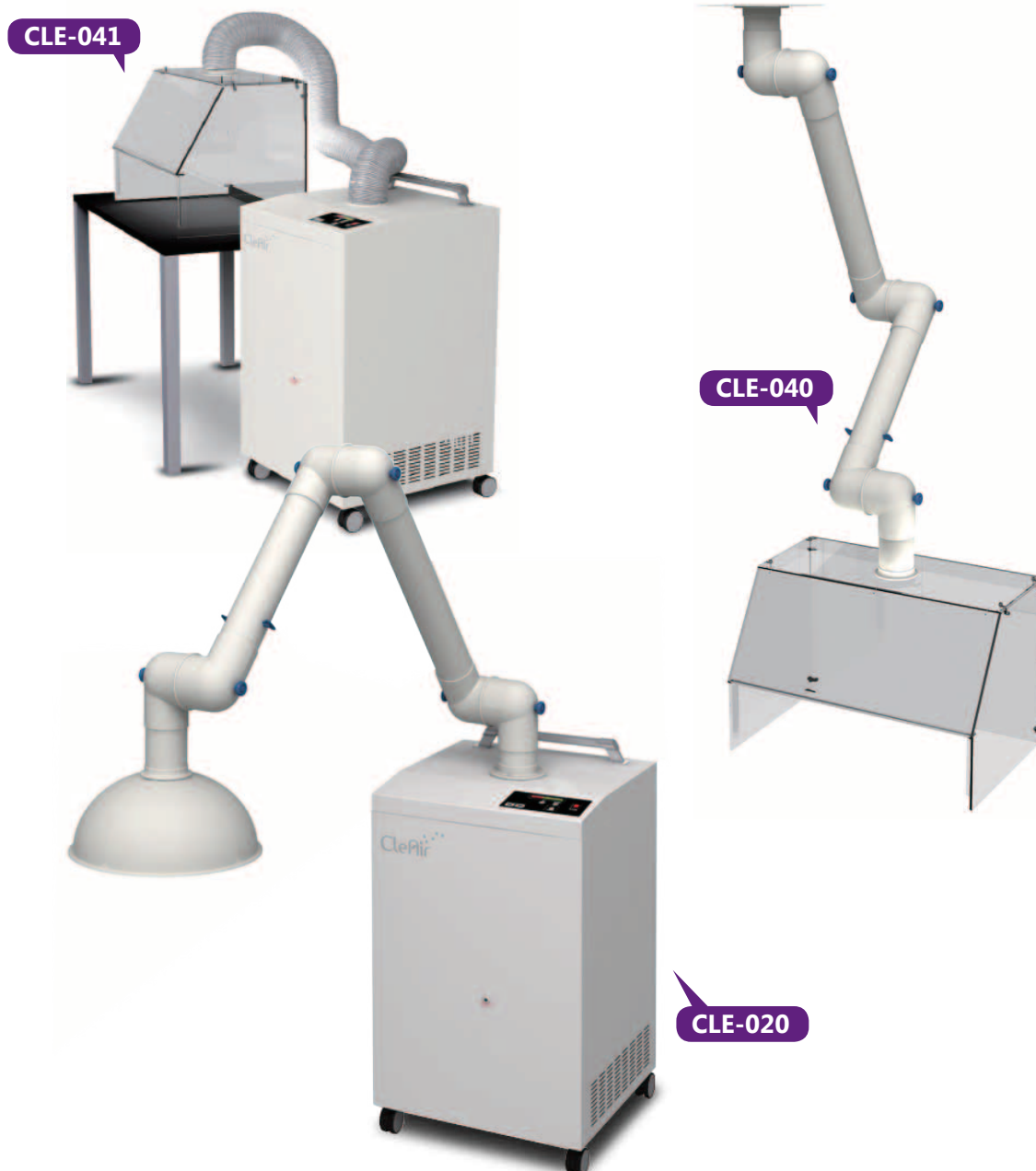
Model No.	WxDxT (mm)
CLE-007A	200 x 200 x 250
CLE-007B	200 x 200 x 500
CLE-007C	200 x 200 x 700



Wall Type

○ **Specification**

Model No.	WxDxT (mm)
CLE-008	200 x 210 x 220



● Specification

Model No.		WxDxH (mm)	Dia. x L (mm)
CLE-001-05		.	Ø75 x 1500
CLE-020	Arm	.	Ø75 x 1300
	Filter box	500 x 500 x 865	.
CLE-040		500 x 450 x 400	.
CLE-041		500 x 450 x 400	.



Business Performance

Installation

We have been supplying the lab furniture, fume hood and laboratory equipment to various laboratories such as government-invested organizations, education, pharmacy, medical, chemistry, cosmetics, bio-engineering, and food area etc., based on the accumulated technology power to perform the whole process of laboratory layout, design, production, installation and validation.

Pharmaceutical factory



Cosmetics



University



Bio-engineering



Research institution



Chemicals



University



Food-engineering



● Research institution



● Hospital



● Chemicals



● Micro-biological institution



● Agriculture technology center



● School



● School



● Chemicals





ADVANCED LABORATORY SYSTEM