2025-2026

Laboratory Facilities

Corporate Profile

Management philosophy

Support R&D and production technology innovation in various fields and contribute to the progress and development of science and technologies.

Management principles

As an important member of Yamato Scientific, constantly provide customers the latest and the most valuable products and the service of safety and ease, cooperate with group company, actively expand group business.
To achieve the goal, the company takes laboratory instruments, laboratory facilities and industrial equipment as the products core, engages in design and development, production, sales and service, through the establishment of high-effective team, advanced equipment and perfect system, provide customers with high-quality products and services.

Environmental principles

In line with its management philosophy, the company is committed to the proactive promotion of environmental protection activities in all aspects of its business activities, capable of sustaining environmental protection as well as corporate profitability.

Environmental policy

1. Compliance with environmental regulations

We will comply with all environment-related regulations and adhere to the provisions of all official agreements and commitments.

2. Improvement of business processes in order to reduce the burden on the environment

We will eliminate all unjustified, unnecessary and inconsistent business processes in order to make more effective use of natural resources and energy and reduce wastes.

3. Promotion of business activities that attempt to reduce the burden on the environment

We will promote activities that will reduce the burden on the environment throughout all of our business processes: design, purchase, production, sales, distribution, use, recycling and disposal.

4. Development of environmentally-conscious products & systems

We will try to improve technologies that promote environmental protection and develop products and systems that remain environmentally friendly throughout their lifecycles.

5. Improvement and development of an environmental management system

We will continue to improve our environmental activities and pollution prevention measures by setting goals and objectives and reviewing them regularly.

6. Notification and publication of our environmental policy

We will educate our employees, and all other people who work for us, to make them familiar with our environmental policy so that they will act in accordance with its principles. We will also make our environmental policy public.

Acquisition of ISO certification

Japanese Factory
ISO9001

Japanese Factory
ISO14001

Japanese Factory
ISO13485

Chinese Factory
ISO9001

Chinese Factory
ISO14001

Chinese Factory
OHSAS18001

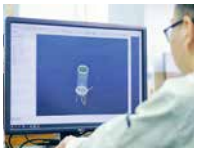
Design & Development

Japan

The R&D center of Yamato Scientific in Japan undertakes the product development. In a high-efficient development environment, they are committed to new products development contributing to production technology innovation. All the new achievements, not only are provided for enterprise, university and government around the world, but also make a contribution to the wolrd's most cutting-edge research and development (the Nobel Prize) and production technology innovation.

China

Yamato Chongqing has set up a high-efficient R&D team and perfect R&D system, by introducing 3d - CAD and product data management system, the product design is more standard and efficient, and also co-design with Yamato Scientific. Depending on Yamato Scientific's technology accumulation of more than 120 years and its technical support, design and develop all kinds of instruments, equipment and industrial equipment to meet customer needs and ever-changing market needs.



Production & Manufacture

The factory has production lines necessary for metal plate processing, coating, assembling, inspection and packing, and produces various instruments and equipment. Metal plate processing line is 24hr working NCT auto production line; coating line consists of powder coating and paint coating; assembly line consists of multiple production lines. Multi-varieties and small batch production mode is adopted for laboratory instruments and equipment. These production adjustments that we match with the purchase order process enable us to shorten delivery time, plan adequate stock and supply management.

1. Metal plate processing line

Yamato has NCT automatic processing equipment for punching and cutting raw materials (steel plate, stainless steel, aluminum) and equipment for bending and welding of formed material according to NC programming. The production of processed products from raw materials provides a good preparation for subsequent process.

2. Coating line

In addition to paint coating (30 micrometers thick), we also use a powder coating (60 micrometers thick), which largely improves the production capacity.

3. Assembly line

Flexibly adopt independent assembly production mode and cope with mass production in delivery period according to the orders. Visualize the project process and continue to improve efficiency.

4. Inspection line

Strictly inspect the product's appearance, electrical performance, temp. performance, etc. to ensure and maintain the quality of Yamato products.

Product profile

Laboratory Instruments

Various product lines that precisely capture market demands

Laboratory instruments, as Yamato's main product line, contains sterilizer, spray dryer, plasma cleaner, water purifier, muffle furnace, constant temp. drying oven, constant temp. incubator, constant temp. water bath, constant temp. water circulator, rotary evaporator, freeze dryer, stirrer·shaker, washer, etc. Furthermore, we plan a lineup suitable for customer needs and target at improvement of research environment by providing high-quality products.

Industrial Equipment

Contribute to increase productivity

From lithium battery, semiconductor, electric parts to information communication, electronic materials, FPD (LCD, organic EL, PDP and others), precision machine, etc., we provide various equipment and machines to increase the industry productivity.

Laboratory Facilities

Provide suitable environment and new values

We offer equipment needed by various research and development such as fume hood, laboratory tables, clean benches and environmental test rooms. On the basis of standard products, we offer fume hood with built-in water purifier or air conditioners for external atmospheric treatment that meet the requirements of the laboratory.
The laboratory tables are made of pure steel(solid top board), allowing for pharmaceuticals resistance test, as well as special edge processing.
Furthermore, we work constantly with customers to improve the work environment, including ease of movement in the lab and the solution to the storage space and environmental dissatisfaction.

Focus on the ideal next-generation laboratory

Yamato Scientific is able to develop, design and produce laboratory instruments and equipment in its own factory.
With four basic concepts in mind: space saving, efficient work system, storage space and safety measures, freely design to meet the requirements of each customer.
Inspection and experimentation devices are chosen for various fields of examination.
Provide a free and creative environment based on the theme of people, environment and research and continuously improve to meet the customer's needs.

Support the design, establishment and relocation of laboratory

For the design, establishment and relocation of laboratory, we provide synthetic technical support such as environmental pollution countermeasures and model selection. As per customer's requirements, from basic proposal to enforcement plan, basic design and actual operation, we can satisfactorily solve all the problems about establishment and relocation. Yamato Scientific has professional group and special views about laboratory instruments and equipment, and provides a full range of laboratory services.

Excellent technical strength to help you successfully complete the relocation of laboratories and production lines

The environmental analysis and overall planning of laboratory instruments and equipment when relocation, from laboratory facilities like experiment table and fume hood to experimental data and samples relocation, we provide safe, quick and accurate service. In addition, we plan the layout considering the working efficiency so as to create a high-efficiency and safe laboratory environment.

Laboratory Assistant

Intelligent Robot·Laboratory Assistant

On site of research or quality control, a lot of work need manual operation. Some work does not realize automation, their results depend on human skill and technique. Subdividing these work, tracing the skill and technique, and forming the synthetic system of numerical criteria, these are realized by Intelligent Robot·Laboratory Assistant.

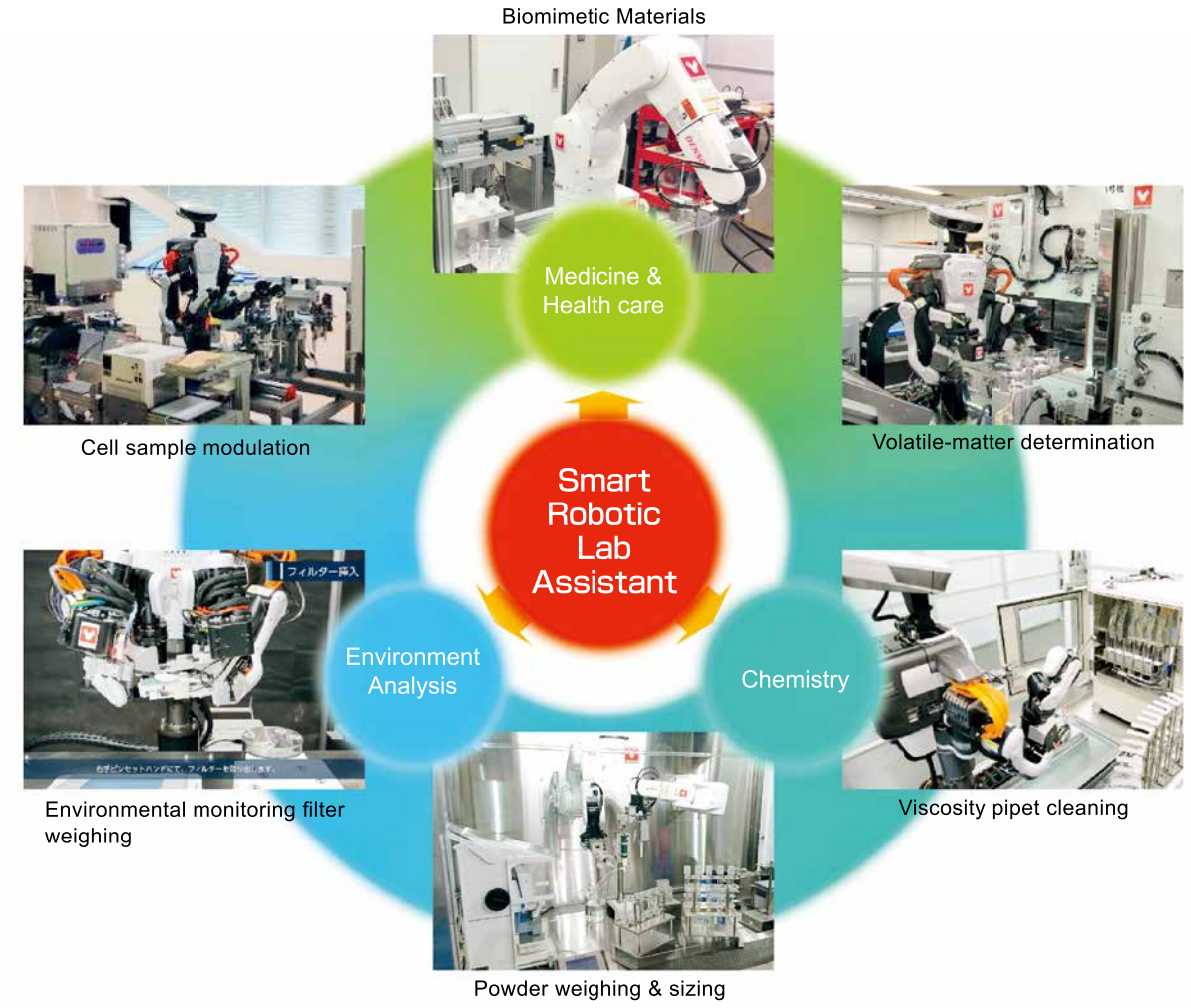
Advantages of Laboratory Assistant

- Different from the former robot system which targeting increase of handling capacity, Yamato robot system can trace the operation procedure confirmed by researcher, realize the accuracy and reproducibility which is hard to achieve by manual operation, and also solve the problem of long-time and continuous operation for manual operation.
- Besides conduct the effective operation layout as per customer's requirement, in order to effectively make use of the laboratory space, the equipment matched with robot also can be customized.
- The robot system, based on human hand operation, saves the training fee of operators and their skill retraining fee.

Characteristics of Laboratory Assistant

- Specially designed arm and auxiliary instrument·equipment
  In order to realize the operation demanded by customer, skill imitation is very important. According to motions required by customer, make special arm with additional functions, and it's able to develop, design and produce the synthetic automation of auxiliary instrument·equipment as per operation requirements.
- Combine with analytical and measuring instruments
  Proficient in the technique and characteristics of analytical and measuring instruments, choose suitable instrument as needed.
- Pay attention to lead in cost system proposal
  Make use of the existing instruments and equipment of customer to reduce the system cost.

Application & Marketing Performance



Cases

Automatic Cell Sample Modulation System (Co-research with Tokyo University)


❶ Culture dish removal


❷ Solution addition

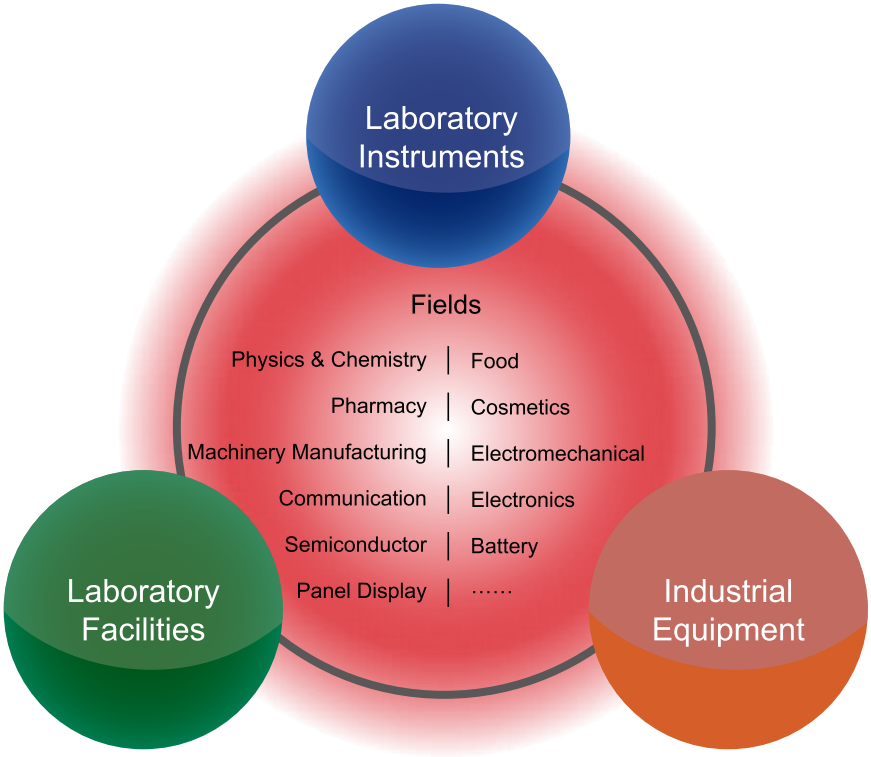

❸ Lid opening and closing


❹ Cell cleaning

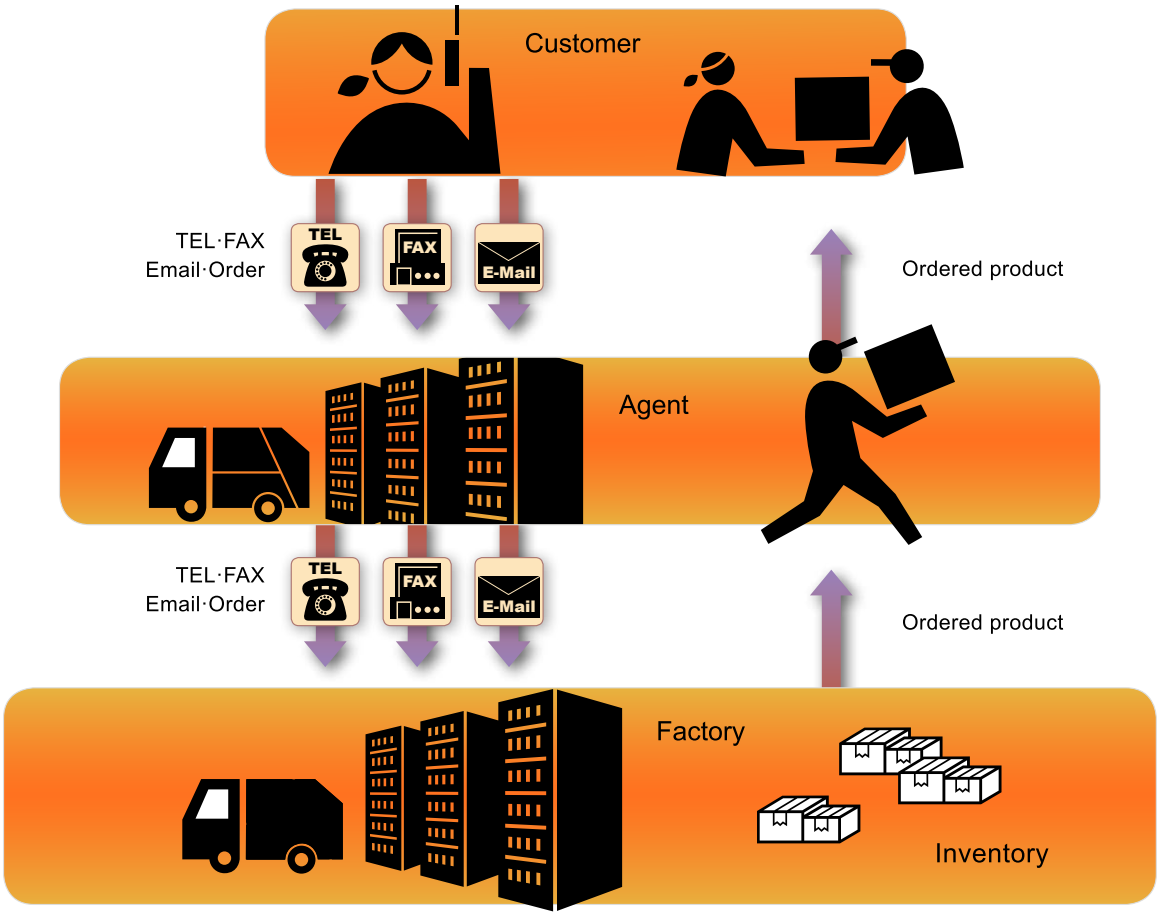

❺ Attachment clearing


❻ Cell recovery

Application Fields



From Order to Deliver



Sales and Service Network

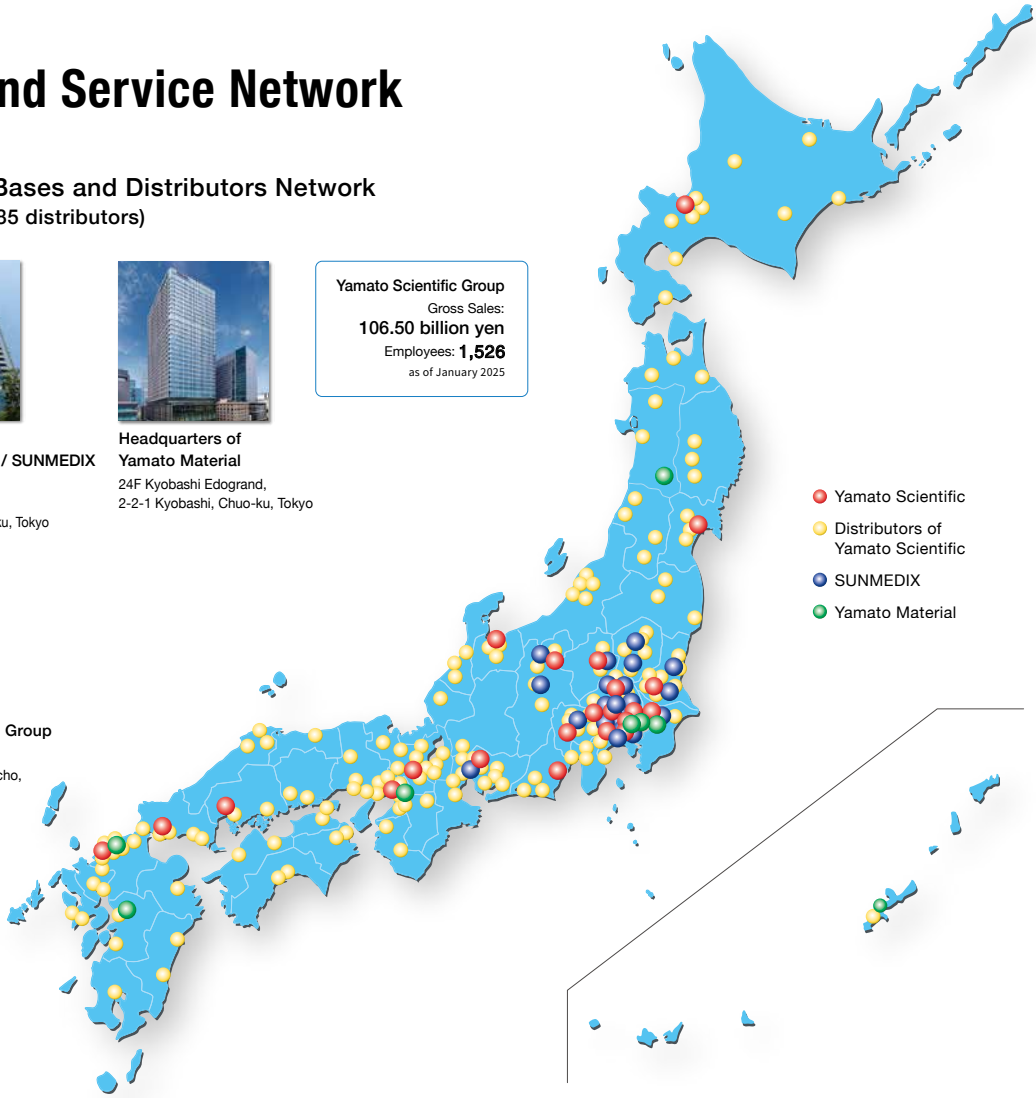
Domestic Bases and Distributors Network
(48 bases / 185 distributors)

Headquarters of Yamato Scientific / SUNMEDIX
Harumi Triton Square
Office Tower Y (36F),
1-8-11 Harumi, Chuo-ku, Tokyo

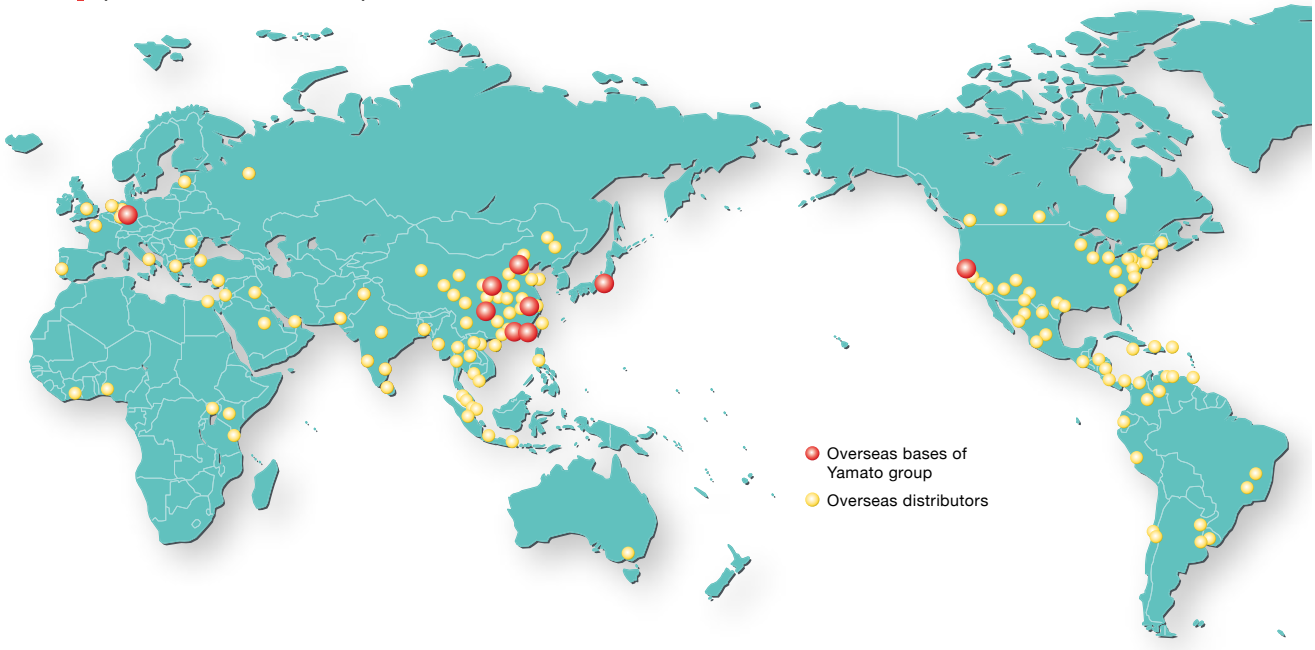
Headquarters of Yamato Material
24F Kyobashi Edogrand,
2-2-1 Kyobashi, Chuo-ku, Tokyo

Yamato Scientific Group
Gross Sales:
106.50 billion yen
Employees: **1,526**
as of January 2025

Yamato Scientific Group Head office
2-2-2 Nihonbashihoncho,
cyuo-ku,Tokyo



Overseas Bases and Distributors Network
(8 bases / 323 distributors)



Laboratory Facilities

B1 | Fume Hoods P.15

LDS

Name:Fume Hoods
Model:LDS
Feature:Standard Type
Page 24

LDN

Name:Fume Hoods
Model:LDN
Feature:Low Airflow Type
Page 26

LDX

Name:Fume Hoods
Model:LDX
Feature:Airflow Control Type
Page 27

LDY

Name:Fume Hoods
Model:LDY
Feature:Airflow Control Type with Sliding Door
Page 28

LDXA

Name:Fume Hoods
Model:LDXA
Feature:Built-in Supply and Exhaust Airflow Control Type
Page 29

LDS-J

Name:Fume Hoods
Model:LDS-J
Feature:Low Ceiling Type
Page 30

LDS-A

Name:Fume Hoods
Model:LDS-A
Feature:Air Curtain Type
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LDG

Name:Fume Hoods
Model:LDG
Feature:Synthesis Type
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LDT

Name:Fume Hoods
Model:LDT
Feature:Low Bed Type
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LDB

Name:Fume Hoods
Model:LDB
Feature:Environmental Type, Dual Tray
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LDC1

Name:Fume Hoods
Model:LDC1
Feature:Environmental Type, Multi-Stage Packed Tower
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LDC2

Name:Fume Hoods
Model:LDC2
Feature:Environmental Protection Type, Simple Exhaust Treatment
Page 36

LDF

Name:Fume Hoods
Model:LDF
Feature:With Adsorption Device
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LDD

Name:Fume Hoods
Model:LDD
Feature:Two-Sided
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LDE

Name:Fume Hoods
Model:LDE
Feature:Explosion-proof Type
Page 39

LDP

Name:Fume Hoods
Model:LDP
Feature:For Using Perchloric Acid
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Product Guide

LDL

Name:Fume Hoods
Model:LDL
Feature:For Low-Level RI
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LDM

Name:Fume Hoods
Model:LDM
Feature:For Intermediate RI
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LDW

Name:Fume Hoods
Model:LDW
Feature:Walk-in Type
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LDH

Name:Fume Hoods
Model:LDH
Feature:With HEPA High-Efficiency Filter
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FHV

Name:Fume Hoods
Model:FHV
Feature:PVC Material
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CYV·CYV2

Name:Fume Hoods
Model:CYV·CYV2
Feature:PVC Material
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CYF

Name:Fume Hoods
Model:CYF
Feature:Cleanroom Class 100
Page 47

CYG

Name:Fume Hoods
Model:CYG
Feature:Cleanroom Class 100
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MS·MV

Name:Fume Hoods
Model:MS·MV
Feature:Small
Page 49

ST1

Name:Fume Hoods for Powder Weighing and Sealing
Model:ST1
Feature:Weighing and Sealing
Page 50

ST1-BP

Name:Fume Hoods for Powder Weighing and Sealing
Model:ST1-BP
Feature:For Sealing
Page 51

NE1

Name:Fume Hoods for Powder Weighing and Sealing
Model:NE1
Feature:For Nano Material Weighing and Sealing
Page 52

NE2

Name:Fume Hoods for Powder Weighing and Sealing
Model:NE2
Feature:For Nano Material Sealing
Page 53

FCCZ

Name:Fume Hoods for Powder Weighing and Sealing
Model:FCCZ
Feature:For PM2.5 Measurement
Page 54

CRW3

Name:Exhaust Gas Washing Equipment for Fume Hoods
Model:CRW3
Feature:Wet Type
Page 55

CRH·CRB

Name:Exhaust Gas Washing Equipment for Fume Hoods
Model:CRH·CRB
Feature:For Acidic Gases
Page 56

CRF3

Name:Exhaust Gas Washing Equipment for Fume Hoods
Model:CRF3
Feature:Dry Type
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B2 Clean Benches P.59

ADS-UG

Name:Clean Benches
Model:ADS-UG
Feature:Biological Use, Basic Type
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ADE

Name:Clean Benches
Model:ADE
Feature:Biological Use, Forced Circulation Exhaust Type
Page 63

ADS

Name:Clean Benches
Model:ADS
Feature:Industrial Vertical Airflow
Page 64

AHS

Name:Clean Benches
Model:AHS
Feature:Horizontal Airflow
Page 65

B3 Laboratory Furniture P.67

LC

Name:Island Bench
Model:LCA·LCB·LCC·LCD·LCE·LCF
Feature:Standard Type
Page 68

LF

Name:Wall Bench
Model:LFA·LFB·LFC
Feature:Standard Type
Page 73

LS

Name:Sink
Model:LSA·LSB·LSC·LSD·LSE
Feature:Standard Type
Page 76

LB

Name:Table for Balance
Model:LBA·LBB·LBC
Feature:Standard Type
Page 78

SU

Name:Storage Cabinet
Model:SU-1C/2C/3C/4C/5C
Feature:Standard Type
Page 78

LL

Name:Chemical Utensil Cabinet
Model:LLA·LLB
Feature:Standard Type
Page 79

LN NEW

Name:Hazardous Chemical Explosion-proof Cabinet
Model:LN-012/022/045
Feature:Standard Type
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LQ NEW

Name:Intelligent Reagent Cabinet
Model:LQ-022/045
Feature:Standard Type
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B Laboratory Facilities

1

Fume Hoods

Contents

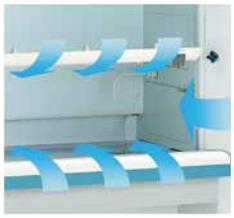
Superior safety, cleanliness, and lightweight design.

Yamato Scientific's series of laboratory fume hoods combine high-efficiency research functionality, comfort, convenience, and design. They offer researchers a relaxing and aesthetically pleasing research space, tailored for advanced and diverse types of laboratories. Made with environmentally friendly materials, ensuring energy efficiency while enhancing safety and functionality.

Excellent Features

Expandability

LDX installation wind speed meter (optional)



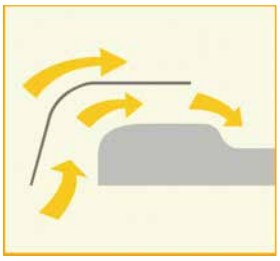
Spacious opening

The effective height of the opening is 770mm, making it convenient for placing and operating machines. (When the rectification plate is removed)

Control panel

The sloped installation features an embossed operation panel for enhanced usability and visibility.

High safety



Rectification plate to improve the rectification efficiency.

The rectification plate at the lower part of the front door frame opening improves the turbulent airflow at the edge of the opening, enhancing rectification efficiency.

Effective exhaust with multiple slots & new baffle structure

The air inside the fume hoods can be efficiently exhausted through three points: lower, middle, and upper parts.

Non-combustible interior materials

Considering fire prevention, the interior materials are non-combustible.

Safety

Mechanisms to prevent the door from falling, an exhaust delay function to exhaust the residual gases in the exhaust pipe (with four selectable delay times), and other standard safety features.
Additionally, a double wire rope mechanism to prevent the front door from falling in case the wire rope breaks is available as an option.

Selection conditions

Which chemicals are used?

When using chemicals specified in the regulations for organic solvent poisoning prevention or specific chemical substance hazard prevention, a minimum control wind speed is required.

Is it radioactive material or perchloric acid?

Please use a dedicated fume hood for each, and it's recommended to control the wind speed above 0.5m/s when fully open.

How much heat is used?

When using a heat source, control it within 2326 J/s (2000 Kcal/h). If this heat level is exceeded, set the wind volume separately.

Size of the equipment and machines placed inside the fume hood?

When setting up machines, confirm the effective dimensions and load capacity of the fume hood interior. The general load capacity of a fume hood is 100kg/unit.

Shape, size, space?

Various shapes and sizes are available, and customization is possible. Basic dimensions are width 1200, 1500, 1800mm, and depth 750mm.

Is the material suitable?

Especially when using a large amount of acidic substances, choose a dedicated type.

Environmental protection measures?

When exhausting harmful gases, an exhaust treatment device must be installed, and the same applies to drainage.

Is energy-saving considered?

A fume hood with a wind volume controller (VAV type) is suitable.

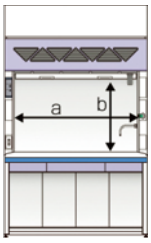
Is the fire prevention measure appropriate?

The installation environment must be free of flammable and explosive gases.

Setting the Exhaust Volume

Exhaust Volume (m^3/min) = 60×Opening Area (m^2)×Face Velocity (m/sec)

Opening area (m^2) = a(m)×b(m)



The exhaust volume of the fume hood is determined based on the control wind speed and the height and width dimensions of the door frame opening using the formula above.

For example, a fume hood with a width of 1800mm (effective width 1560mm), opening height (half-open door frame) of 385mm, and a face velocity of 0.5m/s has an exhaust volume of 19m^3 and an exhaust pipe diameter of 250mm. (LDS-180 Type)

Standard face velocity in front of door frame

The usual recommendation in various countries is 0.5m/s. The specific chemical substance hazard prevention regulation and organic solvent poisoning prevention regulation require designing with a safety factor accounting for wind speed fluctuations.

Door frame opening height

The opening height is usually set at around 200~400mm, considering the shielding protection of the front door frame and the visibility of the work area. The full opening height is for maintenance.

Working surface

Ceramics

Covered with enamel and treated at high temperatures, it has excellent chemical resistance, stain resistance, and impermeability. Seamless processing and a completely inorganic dense single plate make it suitable for various experiments.

Epoxy resin

Formed with uniformly thick epoxy resin, the surface is treated to remove gloss. It has very low water absorption and offers excellent water resistance, stain resistance, and superior chemical and physical properties, making it durable for general chemical experiments.

Stainless steel

It also has excellent stain and water resistance.

Ceramic steel plate

By covering the base material (stainless steel plate) with ceramic, it provides unprecedented acid resistance, heat resistance, and abrasion resistance, making it a high-performance working surface dedicated to fume hoods.

Chemical Resistance

Chemical name	Concentration %	Ceramics	Epoxy resin	Ceramic steel plate	Stainless steel	Aluminum (anodic oxidation coating composite film treatment)	Hard Polyethylene	Non-asbestos fireproof board
Hydrochloric acid	5	A	A	A	C	B	A	C
Hydrochloric acid	36	A	A	A	C	C	A	C
Aqua regia		A	C	B	C	C	A	C
Perchloric acid	60	A	A	B	E	C	A	B
Chromic acid mixture		A	C	E	D	B	A	B
Mixture (sulfuric acid + hydrochloric acid)	1:1	A	A	A	D	C	A	C
Mixture (sulfuric acid + nitric acid)	1:1	A	E	E	C	E (produces white rust)	A	C
Nitric acid	20	A	A	A	B	C	A	C
Nitric acid	60	A	A	B	C	D	A	C
Hydrofluoric acid	20	C	D	E	D	E (produces white rust)	A	C
Hydrofluoric acid	46	D	D	E	D	E (produces white rust)	B	C
Sulfuric acid	10	A	A	A	C	A	A	C
Sulfuric acid	95	A	E	E	C	E (produces white rust)	A	C
Phosphoric acid	20	A	A	A	B	A	A	C
Phosphoric acid	85	A	A	A	B	D (produces white rust)	A	C
Acetic acid	20	A	A	A	B	A	A	A
Ammonia water	28	A	A	A	B	A	A	A
Caustic soda	20	A	A	C	B	A	A	B
Caustic soda	Saturated	A	A	C	-	A	-	B
Potassium permanganate	Saturated	B	C	C	D	B (turns brown)	C	B
Ferric chloride	Saturated	A	A	A	A	A	B	A
Acetone		A	A	A	A	A	B	A
Methyl acetate		A	A	A	A	A	-	A
Carbon tetrachloride		A	A	A	A	A	B	A
Methanol		A	A	A	A	A	A	A
Ethanol		A	A	-	A	A	A	A
Chloroform		A	E	-	A	A	D	A
Xylene		A	A	-	B	A	D	A
Petroleum ether		A	A	-	-	A	-	A

Test Method

After cleaning and drying the test plate, 0.2ml of the test chemical is dropped on the plate, covered with a watch glass, left at room temperature for 24 h, then the test solution is washed off, and changes in the test plate are observed with the naked eye.

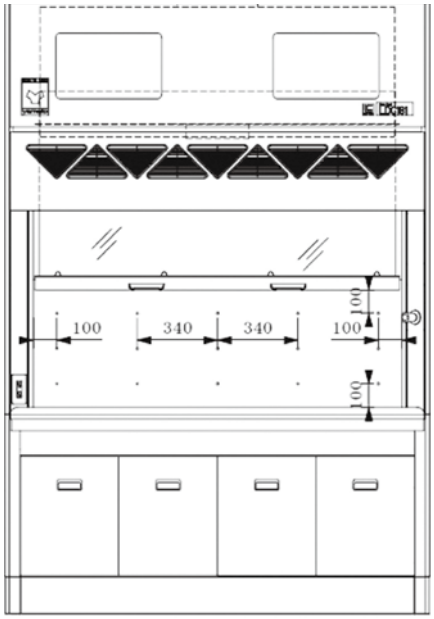
A: No change
B: Slight change
C: Slight corrosion on the surface
D: Significant corrosion
E: Completely corroded

Superior Safety

Yamato Scientific series fume hoods are tested and detected with reference to relevant international standards (ANSI/ASHRAE of the US, EN of Europe).

The Labor Safety and Health Law stipulates the safety standards for fume hoods in Japan. However, this content is only specified in the “Specific Chemical Substances Hazard Prevention Regulation” and the “Organic Solvent Poisoning Prevention Regulation” for controlling wind speed. For this, since Europe and the United States standardized performance test methods in the 1980s, safety evaluation tests are currently conducted based on these standards.
The globally recognized performance test methods now include the American standard “ANSI※1/ASHRAE※2110-1995 Fume Hood Performance Test Method (hereafter referred to as the ASHRAE test)” and the European standard “EN※3 14175-3:2003 Fume Hood Model Test Method (hereafter referred to as the EN test)”. Both standards quantitatively evaluate the safety of fume hoods.
Since there are no relevant standards in Japan, our company has introduced both the ASHRAE test and the EN test to provide users with assurance and trust.

※1 ANSI: American National Standards Institute
※2 ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers
※3 EN: Europeen Norm



Multi-point anemometer wind speed measurement

Labor Safety and Health Law (Japanese regulations)

To protect the safety of workers, the Labor Safety and Health Law established the “Organic Solvent Poisoning Prevention Regulation” in 1960, and in 1972, established the “Specific Chemical Substances Hazard Prevention Regulation” to ensure safety when using primarily carcinogenic substances. These laws stipulate that when using specified hazardous substances, a local exhaust device must be installed to expel vapors and gases from the workspace, and the performance of these local exhaust devices is specified as shown on the right.

Items	Specifications
Organic solvent poisoning prevention regulation	Minimum wind speed: 0.4m/s
Specific chemical substance hazard prevention regulation	Minimum wind speed: gaseous 0.5m/s, particulate 1.0m/s Concentration observation: The concentration outside the measuring device should be below the permissible concentration.

International specifications of fume hoods

In Europe and the United States, the safety evaluation test methods for fume hoods have been standardized since the 1980s. The European standard EN14175 unified the standards in 2013.

Country name	Standards
Denmark	DS475 (1993)
France	NF XPX 15-203 and-206 (1996)
Germany	DIN 12924 Part 1-4 (1991/3)
Scandinavia	Nordtest NTVVS 095 (1993)
United Kingdom	BS 7258 Parts 1-4 (1994)
US	ANSI/ASHRAE 110-1995 (1995)
Europe	EN 14175, Part 1-4 (2003/2004)

Main overseas safety regulations related to fume hoods	
ANSI/NFPA 45	Issued by the American National Fire Protection Association, this is the fire prevention standard for chemical laboratories.
ANSI/AIHA Z9.5	Issued by the American National Standards Institute, this is the regulation for laboratory exhaust systems.
OSHA 1910.1450	Issued by the U.S. Occupational Safety and Health Administration, this is the standard for permissible exposure limits to hazardous chemicals in research laboratories.
ACGIH	Issued by the American Conference of Governmental Industrial Hygienists, this is the standard for permissible exposure limits to hazardous chemicals in research laboratories.
SEFA	Issued by the American Scientific Equipment and Furniture Association, this is the recommended standard for fume hoods.

ASHRAE/EN Test

The ASHRAE standard and the EN standard share the same concept of quantitatively evaluating the safety of fume hoods but have different features and test methods, making simple comparisons difficult. However, both standards commonly emphasize the “containment test”. By generating tracer gas inside the fume hood and measuring the amount of leakage, there are significant differences based on the measurement points. The ASHRAE test uses the “nasal area of the human mannequin placed in front of the fume hood” as the measurement standard, while the EN test uses the “control area of the front door frame opening” as the measurement standard. Both standards specify test methods but do not specify specific standard values.

ANSI/ASHRAE 110-1995 (American standard)

This is the American performance test method. By placing a human mannequin in front of the fume hood and using the nasal area as the measurement baseline, it measures the leakage amount of tracer gas from the fume hood in the “containment test”, which is a method to quantify performance.

Items	Test Method
Wind speed test	Divide the front door frame opening into equal horizontal and vertical dimensions and measure the wind speed.
Airflow visualization test	Using a smoke device or a device that can visualize the airflow, observe visually. Visually evaluate the ability to control the gas generated in the fume hood within the edges.
Containment test	Generate tracer gas within the fume hood and measure its leakage amount. Conduct 3 tests: fixed position test, door frame movement test, and walkthrough test. The position of the ejector is measured at the center, left, and right. Based on the measured conditions, there are 3 levels, control level is indicated as yyy. • Manufacturing test: AM (As Manufactured) yyy • Installation test: AI (As Installed) yyy • Usage test: AU (As Used) yyy
① Fixed position test	Set the door frame at the designed opening height. Place the tracer gas ejector at one of the test positions. Release the tracer gas and measure and record the concentration for 5 min.
② Door frame movement test	Open and close the door frame and measure and record the concentration of tracer gas.
③ Walkthrough test	Walk through the door frame with the tracer gas and sense the area around the opening with the sensor.
VAN responsiveness test	Set the front door frame to 25% opening, then open it fully and measure the time to reach the design wind speed.

ASHRAE test fixed position test

International standards of fume hoods

Chapters	Name
Part1	Terminology
Part2	Safety and performance requirements
Part3	Model test methods
Part4	Site test methods
Part5	Recommendations for installation and maintenance (under preparation)
Part6	VAV fume hoods (under preparation)
Part7	High-temperature and acid-use fume hoods (under preparation)

EN14175 currently consists of 4 chapters, with 3 additional chapters under discussion. Part 3 will be the model test method for laboratory fume hoods, and Part 4 will be the performance test method for installation site, clearly distinguishing the two.

EN test wind speed measurement

EN14175-3: 2003 (European standard)

Previously, each European country had its own performance test methods. With the formation of the European Union, specifications were unified and standardized as EN specifications in 2003.

The EN test, as a containment test method, includes the following 3 types: internal measurement in the fume hood door frame surface, external measurement at a distance of 50mm from the door frame surface, and robustness measurement causing external disturbances at the door frame surface. To create higher safety products, our company has incorporated both the ASHRAE test and the EN test. Before introduction, we established the test methods with the guidance of the German company “Tintschl BioEnergie und Stromungstechnik AG company”.

EN test internal measurement

Items	Test Method
Exhaust air volume	Measure the wind speed inside the duct and calculate the air volume from the cross-sectional area of the duct.
Wind Speed	Measure the wind speed at each measurement point on the front door frame opening with an anemometer.
Pressure Loss	Measure static pressure at the duct end of the fume hood.
Ventilation Efficiency	Close the door frame to the minimum opening area, release tracer gas, adjust the flow rate until the concentration reaches a specified value, and stop the tracer gas after 200 seconds. Then, as the tracer gas concentration decreases, continue measuring and recording the tracer gas concentration for over 200 seconds.
Containment test	Generate tracer gas inside the fume hood and measure its leakage amount. Conduct three tests: internal measurement, external measurement, and robustness test.
① Internal measurement	Set the door frame to the test door frame opening position. Place the grid electrode of the sampling probe at one of the test positions, release the tracer gas, measure, and record the concentration for 360 seconds.
② External measurement	Set the door frame to the test door frame opening position, release tracer gas, measure and record the concentration for 780 seconds. After 360 seconds at the beginning of the test, close the door frame to the minimum opening area at a speed of 1±0.2 seconds; after another 240 seconds, open the door frame to the door frame opening part at a speed of 1±0.2 seconds; then, after 180 seconds, stop ejecting the tracer gas.
③ Robustness measurement	Set the door frame to the test door frame opening position. Make a vertically standing plate on the door frame surface move forward and backward towards the fume hood. The moving speed of the plate is 1.0±0.1m/s. Measure and record the tracer gas concentration. After 60 seconds, move the plate left and right in front of the fume hood six times.

EN test external measurement

EN test robustness measurement

Model selection overview

Applications	General	Low airflow	Organic series	Acid series	Variable air volume	Equipment loading	Gas treatment	RI	Explosion-proof	Cleanliness	Powder	Exhaust treatment
Model recommen-dations	LDS LDD LDS-J	LDN	LDL	LDP FHV CYV	LDX LDY LDXA	LDT LDW LDG	LDB LDC1 LDC2 LDF	LDL LDM	LDE	CYF CYG	LDH ST1 NE1 NE2 FCCZ	CRW3 CRF3 CRH CRB

Standard

LDS
Standard type

P.24

Low airflow type

LDN
Low airflow type

P.26

Airflow control

LDX
Airflow control type

P.27

LDY
Airflow control type with sliding door

P.28

LDXA
Built-in supply and exhaust airflow control type

P.29

Shape classification

LDS-J
Low ceiling type

P.30

LDT
Low bed type

P.33

LDW
Walk-in type

P.43

LDD
Two-sided type

P.38

LDG
For synthesis

P.32

LDS-A
Air curtain type

P.31

Application classification

LDB
Exhaust treatment devices with dual tray method

P.34

LDC1
Exhaust treatment devices with multi-stage packed tower method

P.35

LDC2
With simple exhaust gas device for fume hoods

P.36

LDF
With adsorption device

P.37

LDP
For perchloric acid

P.40

LDE
Explosion-proof type

P.39

Application classification

LDL
For low-level RI use

P.41

LDM
For mid-level RI use

P.42

LDH
With high-efficiency filter

P.44

FHV
Made of PVC

P.45

CYV
Made of PVC

P.46

CYF
Clean Type

P.47

Application classification

CYG
Clean Type

P.48

Small-sized

MS/MV
Small-sized

P.49

Powder sealing and weighing

ST1/ST1-BP
Powder sealing and weighing

P.50

NE1/NE2
Nanopowder sealing and weighing

P.52

FCCZ
PM2.5 measurement

P.54

Exhaust gas washing equipment for fume hoods

CRW3
Wet type

P.55

CRF3
Dry type

P.58

Exhaust gas washing equipment for fume hoods

CRH
Filter type

P.56

CRB
Bubble type

P.56

Fume Hoods | Standard

LDS

Constant air volume exhaust, standard type fume hood.

As part of the laboratory facilities series, it improves operational efficiency when used in combination with frequently used machines in the fume hood. For better operability, various optional items are also prepared. Moreover, the operation parts are set on the sloping surfaces on both sides of the upper part, which is more convenient for operation.

- The main body is made of all-steel with a chemical-resistant coating, sturdy, and fire-resistant.
- The interior uses special asbestos-free boards with good chemical and heat resistance.
- The material of the working surface can be selected according to the purpose.
- The front wind speed and exhaust air volume can be displayed with a simple digital anemometer (optional).
- Laboratory series storage machine units can be set in the lower part.
- It effectively exhausts harmful gases inside the fume hood, utilizing a new baffle structure.
- Standard equipment includes a door drop prevention structure and an exhaust delay timer. The safety of the operator is a top priority.
- Sockets and switches are installed at an easy-to-operate height.
- Considering the gas exhaust and heat dissipation of the lower part, it is also equipped with a ventilation function (for machine settings).

Common specifications

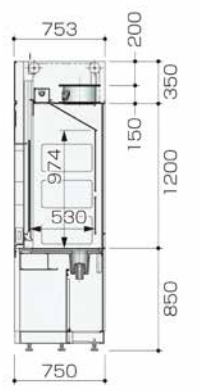
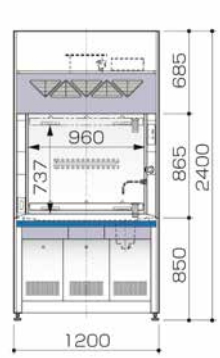
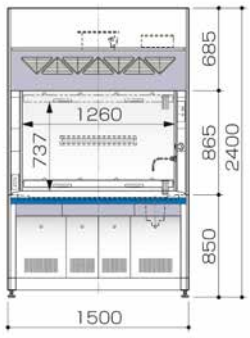
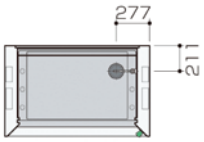
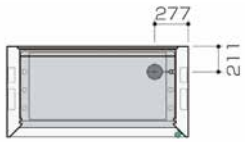
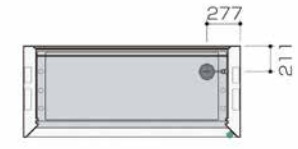
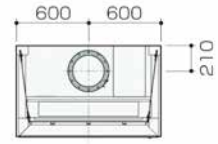
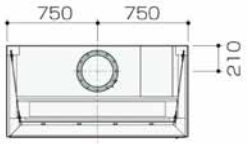
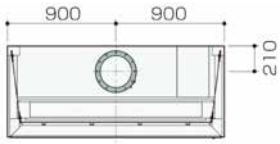
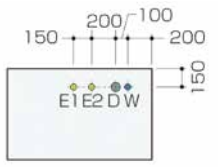
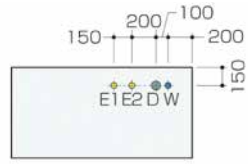
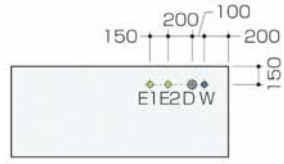
Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special asbestos-free board
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type
Safety mechanism	Door drop prevention stopper, exhaust delay timer, exhaust fan operation monitor

Specifications

Model		LDS-120	LDS-150	LDS-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 290kg	Approx. 330kg	Approx. 370kg
Exhaust air volume (recommended value)		Door opening surface wind speed: 0.5m/s when the door is half-open		
		$12m^3$/min	$16m^3$/min	$19m^3$/min
Internal static pressure (recommended value)		30Pa ($3mmH_2O$)	59Pa ($6mmH_2O$)	79Pa ($8mmH_2O$)

Model selection list

Ceramics (S)	LDS-120S	LDS-150S	LDS-180S
Ceramic steel plate (k)	LDS-120K	LDS-150K	LDS-180K

Model	LDS-120	LDS-150	LDS-180
Dimension diagram (mm)			
Working surface plan			
Exhaust pipe diagram Pipe diameter: 261-267mm			
Piping diagram **W: water supply** **D: drainage** **E1: electrical 1** **E2: Electrical 2**			

Airflow diagram

● When the door is open, the front opening part exhausts at a uniform wind speed efficiently.

● When the door is almost closed, the front wind speed increases, and the upper air intake brings in gas and effectively controls the exhaust

Fume Hoods | Low airflow

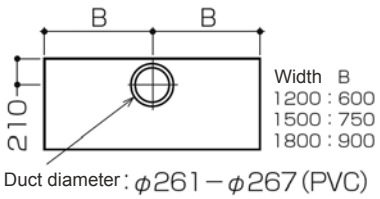
LDN

Safe, comfortable, energy-saving fume hood.

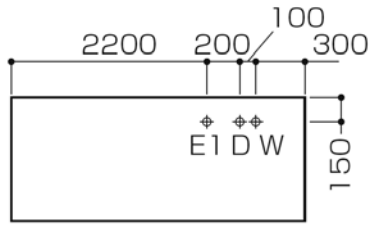
With a unique exhaust design, the exhaust air volume is reduced by about 40%, while maintaining the same containment performance as previous products.

- Through a unique high-efficiency exhaust design, excellent containment performance is achieved even with low exhaust air volume, reducing exhaust air volume by approximately 40%.
- Due to the low air volume, it effectively reduces the costs of air conditioning equipment, operational costs, and environmental load, achieving energy savings with LED lighting.
- High containment performance is realized through our company's exclusive new slit-type buffer plate, a two-layer flow slit method that drives air, and the containment function has passed the EN test verification (European Standard/EN14175-3: 2003).
- The front glass door is larger than previous products, providing a better internal view. Additionally, it features a dual-safety drop prevention structure for the door and a glass door opening limit positioning (with key) as standard configuration.
- An optional LED digital display air volume monitor is available for easy daily management, which alerts laboratory personnel with a buzzer and indicator light when air volume is abnormally low.

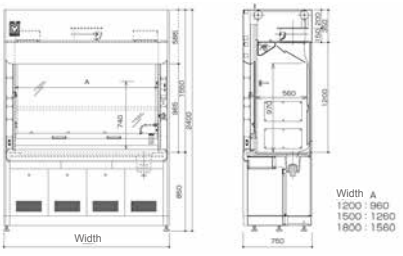
Piping diagram



Exhaust pipe diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
internal lighting (LED)	1 pc
suction method	through front supply on the operation surface (sucking in indoor air),
Safety mechanism	dual prevention structure for door drop, door opening control positioning (with key), exhaust delay timer, air volume monitoring.
Options	Air volume monitoring (LED digital display)

Specifications

Model		LDN-120		LDN-150		LDN-180	
External dimensions	Depth×Height	750×2350mm					
	Width	1200mm		1500mm		1800mm	
Weight		Approx. 320kg		Approx. 350kg		Approx. 390kg	
Front average airflow speed (door open at 400mm)		0.25	0.4	0.25	0.4	0.25	0.4
Exhaust air volume		7m³/min	11m³/min	9m³/min	14m³/min	11m³/min	17m³/min
Internal static pressure		10Pa	22Pa	14Pa	34Pa	23Pa	55Pa
Containment performance (EN test)		Door opening: 500mm, control airflow: 0.25m/s Containment performance: Average below 0.5ppm (German BG CHEMIE recommendation 0.65ppm)					

Model selection list

Ceramics (S)	LDN-120S	LDN-150S	LDN-180S
Ceramic steel plate (k)	LDN-120K	LDN-150K	LDN-180K

Fume Hoods | Exhaust Airflow Control Type

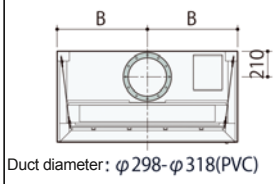
LDX

Energy-saving type with an airflow controller.

Designed for the safety, comfort, and energy savings in laboratory environments, equipped with an airflow controller. Multiple fume hoods can be connected to one exhaust fan unit for centralized exhaust, allowing individual control and separate exhaust as well.

- According to the front door opening, the constant airflow speed mode keeps the front airflow speed constant, regardless of the door opening size, keeping the exhaust volume constant in the constant airflow volume mode.
- With these two operation modes, it can provide a suitable exhaust environment according to usage conditions.
- Through an airflow sensor, it constantly monitors the front airflow speed and exhaust volume of the fume hood, maintaining a safe state.
- Equipped with various alarm functions such as door opening alarm and airflow abnormality.
- Using variable static pressure control, it operates safely and energy-efficiently.
- The lower part can be set with laboratory series storage cabinets and machines.

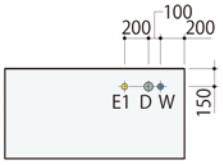
Exhaust pipe diagram



Width B
1200 : 600
1500 : 750
1800 : 900

Duct diameter: φ298-φ318(PVC)

Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)

Dimension diagram (mm)

Common Specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate,
Working surface (selection)	Ceramics (S)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDX-120	LDX-150	LDX-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 270kg	Approx. 320kg	Approx. 360kg
Standard setting range	Constant airflow speed mode	0.5m/sec opening surface airflow speed constant (door fully open/standard setting)		
	Constant airflow volume mode	12m³/min	16m³/min	19m³/min
Exhaust air volume		5~24m³/min	6~31m³/min	8~38m³/min
Internal static pressure		128Pa (24m³/min)	196Pa (31m³/min)	280Pa (38m³/min)

Model selection list

Ceramics (S)	LDX-120S	LDX-150S	LDX-180S

Fume Hoods | Airflow Control Type with Sliding Door

LDY

Convenient type fume hood with glass doors that can open up and down as well as left and right.

A fume hood with left and right sliding glass doors, not found in previous products, and with controllable airflow. Using left and right sliding glass doors, safer and more efficient operation is achieved. Additionally, the VAV type (variable airflow volume type) fume hood is automatically controlled by measuring the speed of the reagent and has high safety.

- With left and right sliding glass doors, operation is more convenient.
- Compared to up and down doors, left and right sliding glass doors can minimize the opening area. The opening degree when the door is fully open is half of previous products, effectively reducing airflow when fully open.
- Automatically adjusts airflow according to the opening degree of the left and right sliding glass doors, VAV type (variable airflow volume type) fume hood can reduce air conditioning operation costs by approximately 80% compared to fully exhaust types (when the front glass door is fully closed).
- The lower part can be set with laboratory series storage cabinets and machines.

Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate,
Working surface (selection)	Ceramics (S)
Glass door	Reinforced glass, 5mm thick, Door frame: Aluminum (chemical-resistant coating)
	Upper and lower doors (weight-balanced type)
	Left and right doors (sliding rail type)
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

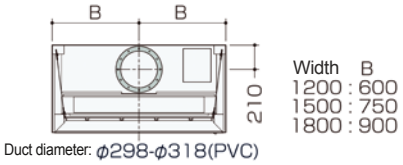
Specifications

Model		LDY-120	LDY-150	LDY-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 270kg	Approx. 320kg	Approx. 360kg
Exhaust air volume		5~13m^3/min	6~17m^3/min	8~22m^3/min
Internal static pressure		36Pa (13m^3/min)	58Pa (17m^3/min)	83Pa (22m^3/min)

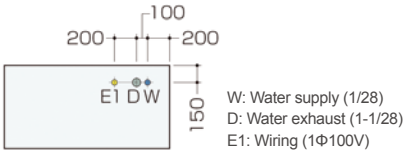
Model selection list

Ceramics (S)	LDY-120S	LDY-150S	LDY-180S

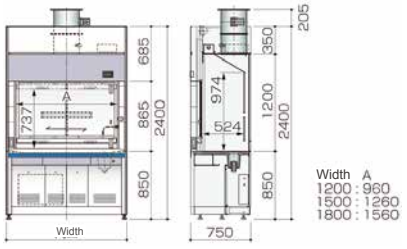
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Fume Hoods | Built-in Supply and Exhaust Airflow Control Type

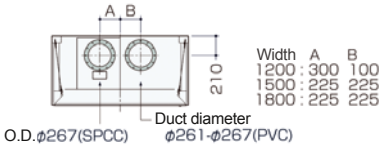
LDXA

Fume hood with both exhaust airflow and Supply air volume controllable.

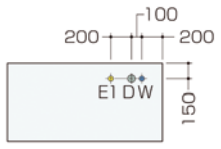
The Supply air volume can be automatically controlled according to the exhaust airflow, preventing exhaust abnormalities due to insufficient supply air, excessive negative pressure indoors, and airflow fluctuations caused by door opening and closing, creating a safe experimental environment.

- Since the fume hood itself can adjust the balance of supply and exhaust air, even if the number of fume hoods in the room increases, it does not disrupt the air balance indoors.
- It has both constant airflow speed mode to maintain a constant front airflow speed and constant airflow volume mode to maintain a fixed exhaust volume, providing the best exhaust environment according to usage conditions.
- The main body is made of all-steel, with chemical-resistant coating, the interior uses asbestos-free flame-retardant decorative boards, with excellent corrosion resistance and fire resistance.
- The lower part can be set with laboratory series storage cabinets and machines.

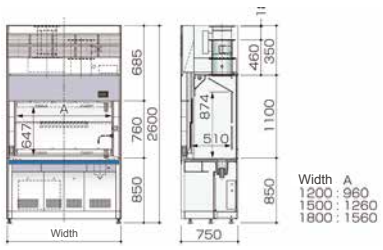
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common Specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate,
Working surface (selection)	Ceramics (S)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDXA-120	LDXA-150	LDXA-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 330kg	Approx. 370kg	Approx. 430kg
Exhaust air volume		6~20m^3/min		
Supply air volume		6~20m^3/min		
Internal static pressure of the supply air unit		108Pa (11mmH$_2$O) (20m^3/min)		
		157Pa (16mmH$_2$O) (20m^3/min)		

Model selection list

Ceramics (S)	LDXA-120S	LDXA-150S	LDXA-180S

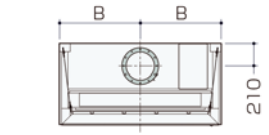
Fume Hoods | Low Ceiling Type

LDS-J

Fume hood suitable for rooms with low ceiling height.

- 300mm lower than the standard LDS type in height.
- The main body is made of all-steel, with chemical-resistant coating, sturdy and excellent in fire resistance.
- The interior uses asbestos-free flame-retardant decorative boards, with excellent chemical resistance and fire resistance.
- The slit-type buffer plate structure effectively exhausts harmful gases inside the fume hood.
- Standard equipped with a door fall prevention structure and exhaust delay timer function, prioritizing the safety of operators.
- The lower part can be set with laboratory series storage cabinets and machines.

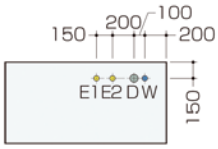
Exhaust pipe diagram



Width B
1200 : 600
1500 : 750
1800 : 900

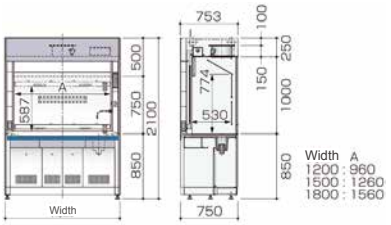
Duct diameter: φ261-φ267(PVC)

Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Width A
1200 : 960
1500 : 1260
1800 : 1560

Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDS-120J	LDS-150J	LDS-180J
External dimensions	Depth×Height	750×2100mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 280kg	Approx. 320kg	Approx. 360kg
Exhaust air volume		10m^3/min	13m^3/min	16m^3/min
Internal static pressure		25Pa (2.5mmH_2O)	39Pa (4mmH_2O)	59Pa (6mmH_2O)

Model selection list

Ceramics (S)	LDS-120SJ	LDS-150SJ	LDS-180SJ
Ceramic steel plate (k)	LDS-120KJ	LDS-150KJ	LDS-180KJ

Fume Hoods | Air Curtain Type

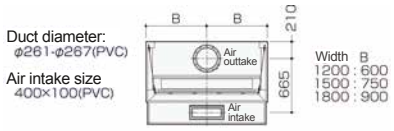
LDS-A

Fume hood with an external air introduction function.

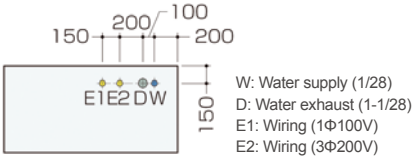
Fume hood with external air introduction function, focusing more on the safety of research personnel and less consumption of indoor air conditioning, further achieving economy.

- The material of the working surface can be selected according to the purpose.
- An optional airflow meter is available, with digital display for front airflow speed and exhaust airflow volume.
- The lower part can be set with laboratory series storage cabinets and machines.

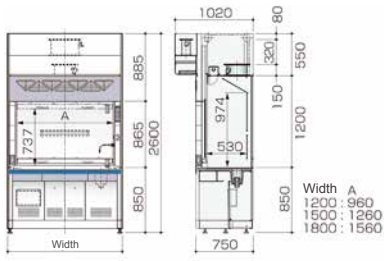
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDS-120A	LDS-150A	LDS-180A
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 340kg	Approx. 380kg	Approx. 440kg
Exhaust air volume		12m^3/min	16m^3/min	19m^3/min
Supply air volume		8.4m^3/min	11.2m^3/min	13.3m^3/min
Internal static pressure of the exhaust air unit		30Pa (3mmH_2O)	59Pa (6mmH_2O)	79Pa (8mmH_2O)
Internal static pressure of the supply air unit		20Pa (2mmH_2O)	35Pa (3.6mmH_2O)	49Pa (5mmH_2O)

Model selection list

Ceramics (S)	LDS-120SA	LDS-150SA	LDS-180SA
Ceramic steel plate (k)	LDS-120KA	LDS-150KA	LDS-180KA

Fume Hoods | For synthesis

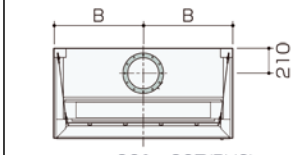
LDG

Fume hood with a higher internal ceiling, making operations inside easier.

Due to the higher opening of the front glass door and the higher internal ceiling, it is easier to move machines into the fume hood and to operate inside the fume hood.

- The larger front glass area makes it more convenient to observe the interior.
- The main body is made of all-steel, with chemical-resistant coating, sturdy and excellent in fire resistance.
- The interior uses asbestos-free flame-retardant decorative boards, with excellent chemical resistance and fire resistance.
- The lower part can be set with laboratory series storage cabinets and machines.

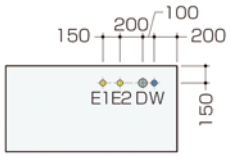
Exhaust pipe diagram



Width B
1200 : 600
1500 : 750
1800 : 900

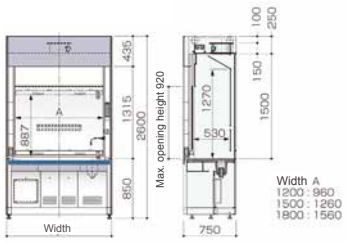
Duct diameter:φ261-φ267(PVC)

Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate,
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDG-120	LDG-150	LDG-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 360kg	Approx. 410kg	Approx. 460kg
Exhaust air volume		14m^3/min	18m^3/min	23m^3/min
Internal static pressure		59Pa (6mmH_2O)	98Pa (10mmH_2O)	167Pa (17mmH_2O)

Model selection list

Ceramics (S)	LDG-120S	LDG-150S	LDG-180S
Ceramic steel plate (k)	LDG-120K	LDG-150K	LDG-180K

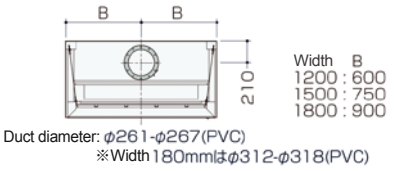
Fume Hoods | Low Bed Type

LDT

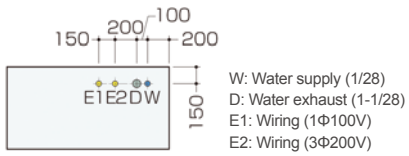
Fume hood with maximized effective internal dimensions, making operations inside easier.

- The high opening of the front glass door and the higher internal ceiling allow for the placement of large equipment.
- The front glass door is a two-piece linkage type, with smooth opening and a large opening area. The main body is made of all-steel, with
- chemical-resistant coating, sturdy and excellent in fire resistance.
  The interior uses asbestos-free flame-retardant
- decorative boards, with excellent chemical resistance and fire resistance.

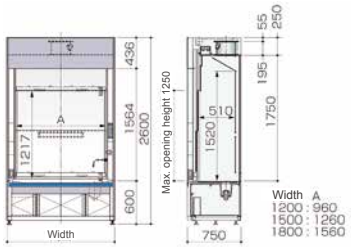
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate,
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDT-120	LDT-150	LDT-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 360kg	Approx. 410kg	Approx. 460kg
Exhaust air volume		19m^3/min	25m^3/min	31m^3/min
Internal static pressure		118Pa (12mmH_2O)	197Pa (20mmH_2O)	148Pa (15mmH_2O)

Model selection list

Ceramics (S)	LDT-120S	LDT-150S	LDT-180S
Ceramic steel plate (k)	LDT-120K	LDT-150K	LDT-180K

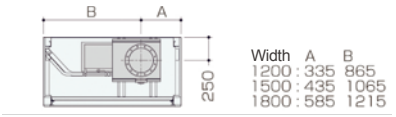
Fume Hoods | Environmental Type, Dual Tray Method

LDB

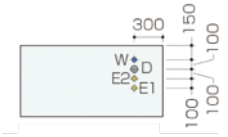
Environmental fume hood that processes harmful gases with a double-layer perforated plate exhaust treatment method.

- Using the company's patented double-layer perforated plate exhaust treatment method, it has high washing efficiency and easy maintenance, making it an environmental fume hood that protects the external living environment.
- All exhaust treatment devices are built-in, and the external dimensions are the same as the standard fume hood.

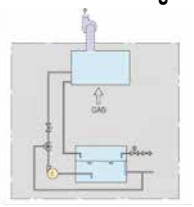
Exhaust pipe diagram



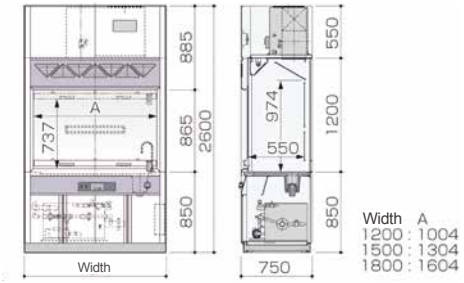
Piping diagram



Exhaust treatment diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special asbestos-free board
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type
Circulation pump	65W
Safety mechanism	Door drop prevention stopper, exhaust delay timer, exhaust fan operation monitor

Specifications

Model		LDB-120	LDB-150	LDB-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 370kg	Approx. 450kg	Approx. 540kg
Exhaust air volume (recommended value)		Door opening surface wind speed: 0.5m/s when the door is half-open		
		$12m^3$/min	$16m^3$/min	$19m^3$/min
Internal static pressure (recommended value)		491Pa (50mmH_2O)	687Pa (70mmH_2O)	785Pa (80mmH_2O)

Washing efficiency

Measurement items	NH_3		SO_2		NHO_3		Cl_2		HCl	
Washing liquid	H_2O	NaOH	H_2O	NaOH	H_2O	NaOH	H_2O	NaOH	H_2O	NaOH
Inlet concentration (ppm)	125	—	—	13	15	25	—	42	30	23
Outlet concentration (ppm)	26	—	—	0.8	4.2	2.8	—	5.5	4.2	2.1
Washing efficiency	79.2	—	—	93.8	72	88.9	—	86.9	85.7	90.9

Model selection list

Ceramics (S)	LDB-120S	LDB-150S	LDB-180S
Ceramic steel plate (k)	LDB-120K	LDB-150K	LDB-180K

Fume Hoods | Environmental Type, Multi-Stage Packed Tower Method

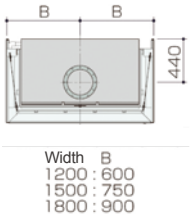
LDC1

Environmental fume hood with a multi-stage packing method exhaust treatment device that processes harmful gases.

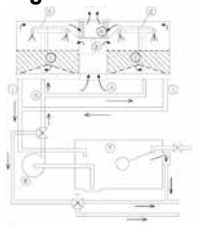
Adopting a multi-stage packed tower method, it achieves higher gas-liquid contact efficiency and reduces pressure loss, improving maintainability, and effectively removes inorganic gases through chemical washing.

- By integrating the treatment device into the fume hood, it saves space and reduces overall setup costs.
- By achieving low pressure loss through proper wind tunnel design, it aims to save energy and reduce operational costs.
- The circulating water bath can be pulled out, and there is a piping inspection port on the back, making it easy to access. Additionally, a filter is installed on the pump circulation system, improving maintainability.
- Equipped with door fall brake block, exhaust delay timer, and washing tower water level abnormality sensor, it creates a safer research environment.

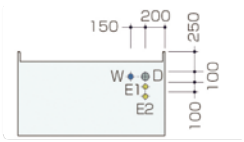
Exhaust pipe diagram



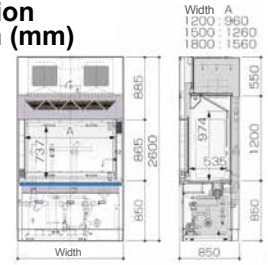
Exhaust treatment diagram



Piping diagram



Dimension diagram (mm)



Common Specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special asbestos-free board
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type
Washing method	Multi-stage packing method (chemical washing)
Safety mechanism	Door drop prevention stopper, exhaust delay timer, exhaust fan operation monitor

Specifications

Model		LDC1-120	LDC1-150	LDC1-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 370kg	Approx. 480kg	Approx. 610kg
Exhaust air volume (recommended value)		Door opening surface wind speed: 0.5m/s when the door is half-open		
		$12m^3$/min	$16m^3$/min	$19m^3$/min
Internal static pressure (recommended value)		170Pa ($17.3mmH_2O$)	210Pa ($21.4mmH_2O$)	290Pa ($29.5mmH_2O$)

Washing efficiency

Measurement items	Inlet concentration	Washing efficiency	Washing liquid
Ammonia	109.4ppm	Over 85%	H2SO4 (pH below 3)
Hydrogen chloride	86.3ppm	Over 85%	NaOH (pH above 10)
Sulfur dioxide	78.7ppm	Above 90%	NaOH (pH above 10)
Chlorine	22.7ppm	Above 90%	NaOH (pH above 10)
Fluorine	36.4ppm	Above 90%	NaOH (pH above 10)

Model selection list

Ceramics (S)	LDC1-120S	LDC1-150S	LDC1-180S
Ceramic steel plate (k)	LDC1-120K	LDC1-150K	LDC1-180K

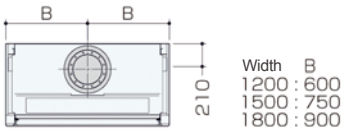
Fume Hoods | Environmental Protection Type, Simple Exhaust Treatment

LDC2

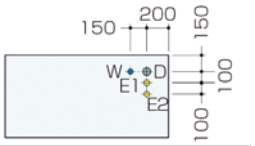
Environmental friendly fume hood with exhaust treatment device using a spraying method to treat the harmful gases.

- The washing tower and circulation water bath have a simple structure, making maintenance easy.
- The structure of the washing tower is made precisely by adopting a parallel spraying method.
- The main body is made entirely of stainless steel and is coated for chemical resistance, making it sturdy and highly fire-resistant.

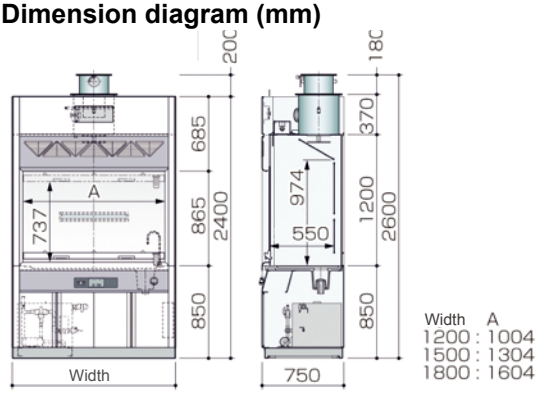
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special asbestos-free board
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type
Washing method	Spraying method
Safety Mechanism	Door drop prevention stopper, exhaust delay timer, exhaust fan operation monitor

Specifications

Model		LDC2-120	LDC2-150	LDC2-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 370kg	Approx. 480kg	Approx. 610kg
Exhaust air volume (recommended value)		Door opening surface wind speed: 0.5m/s when the door is half-open		
		$12m^3$/min	$16m^3$/min	$19m^3$/min
Internal static pressure (recommended value)		196Pa (20mmH_2O)	343Pa (35mmH_2O)	490Pa (50mmH_2O)

Washing efficiency

Measurement items	Inlet concentration	Washing efficiency	Washing liquid
Hydrogen chloride	85.0ppm	97.4%	H_2O
Ammonia	94.0ppm	84.0%	H_2SO_4
Sulfur dioxide	44.0ppm	79.5%	H_2SO_4

Model selection list

Ceramics (S)	LDC2-120S	LDC2-150S	LDC2-180S
Ceramic steel plate (k)	LDC2-120K	LDC2-150K	LDC2-180K

Fume Hoods | With Adsorption Device

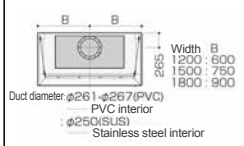
LDF

Fume hood with a dry exhaust treatment device.

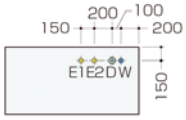
For the removal of organic solvents and acid-base substances that are difficult to treat with wet exhaust treatment devices, a dry exhaust treatment with adsorbents can be selected.

- The adsorption device is installed at the top of the main body, with the operational area remaining the same as the standard type.
- You can choose the most suitable adsorbent for the target gas from activated carbon and chemical adsorbents (4 types).
- Include a cumulative timer for the adsorbent usage time.
- There is also a stainless-steel interior suitable for use with organic solvents.
  (120U/150U/180U type)
- The lower part can be set with laboratory series storage cabinets and machines.

Exhaust pipe diagram

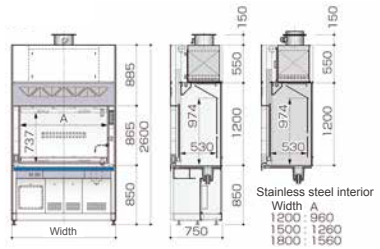


Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Adsorbent selection table

Model	Activated carbon	Chemical adsorbent			
Level	K	A2	E2	F	O2
Target gas	Benzene Toluene Xylene Halogen Hydrocarbon	Hydrochloric acid Sulfuric acid Acetic acid Hydrofluoric acid Phosphoric acid Nitric acid	Hydrogen sulfide sulphurous acid gas Ammonia Ethylene	Caustic Soda Ammonia	Ozone Chlorine Hydrogen Peroxide

Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	120/150/180: special asbestos-free board 120U/150U/180U: stainless steel SUS304
Working surface (selection)	Ceramic (S), ceramic steel plate (K), stainless steel (L)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Adsorption box material	120/150/180: made of PVC 120U/150U/180U: made of SUS
Adsorption tower adsorbent quantity	120: 20kg 150/180: 30kg
Timer	Cumulative usage time for adsorbents (0~9,999.9h) 1 unit
Differential pressure gauges	For pre-filter (0~490Pa/0~50mmH_2O) 1 unit
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDF-120	LDF-150	LDF-180
External dimensions	Depth×Height	750×2600mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 330kg	Approx. 390kg	Approx. 430kg
Exhaust air volume		12m^3/min	16m^3/min	19m^3/min
Internal static pressure		216Pa (22mmH_2O)	245Pa (25mH_2O)	275Pa (28mmH_2O)

Model selection list

General type			
Ceramics (S)	LDF-120S	LDF-150S	LDF-180S
Ceramic steel plate (K)	LDF-120K	LDF-150K	LDF-180K
Stainless steel (L)	LDF-120L	LDF-150L	LDF-180L
Stainless steel interior type			
Ceramics (S)	LDF-120SU	LDF-150SU	LDF-180SU
Ceramic steel plate (K)	LDF-120KU	LDF-150KU	LDF-180KU
Stainless steel (L)	LDF-120LU	LDF-150LU	LDF-180LU

Fume Hoods | Two-sided Type

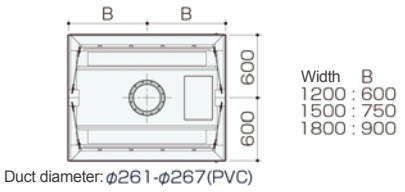
LDD

Fume hood that can be operated from both sides when placed in the center.

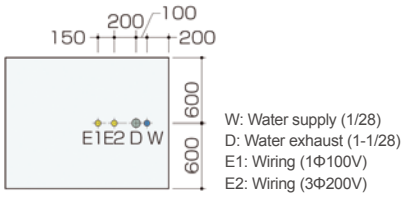
With a wider depth, it can be placed in the center and operated from both sides.

- Both sides are designed with glass doors, allowing it to be used as two units when placed in the center.
- To ensure usability from both sides, it is equipped with 2 water supply valves and two sockets.
- The main body is made entirely of steel and is coated for chemical resistance, making it sturdy and highly fire-resistant.
- The inner walls are made of asbestos-free flame-retardant decorative panels, which have excellent chemical resistance and fire resistance.
- The lower part can be set with laboratory series storage cabinets and machines.

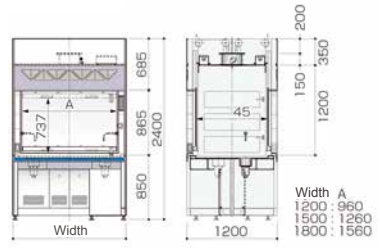
Dimension diagram (mm)



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Stainless steel (L)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDD-120	LDD-150	LDD-180
External dimensions	Depth×Height	1200×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 290kg	Approx. 360kg	Approx. 400kg
Exhaust air volume		20m^3/min	24m^3/min	27m^3/min
Internal static pressure		79Pa (8mmH_2O)	109Pa (11mH_2O)	130Pa (14mmH_2O)

Model selection list

Stainless steel (L)	LDD-120L	LDD-150L	LDD-180L

Fume Hoods | Explosion-proof

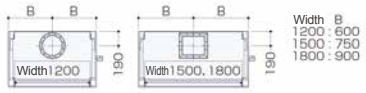
LDE

Explosion-proof and pressure resistant fume hood developed for safety and ease of operation.

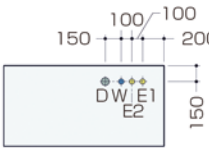
As an explosion-proof and pressure resistant model, this fume hood is designed with multiple considerations for safety and ease of operation.

- The three-phase circuit for operation switches is d2G4, and the single-phase circuit for sockets is d2G4, Exdes II CT5 explosion-proof and pressure resistant specifications.
- It is most suitable for experiments that use a large amount of organic solvents.
- The operation switches and sockets are installed on the front, and the explosion-proof and pressure resistant fluorescent lamps for lighting are built-in.

Dimension diagram (mm)

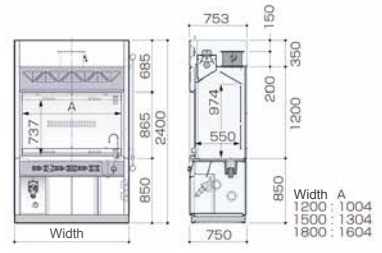


Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Ceramic (S), ceramic steel plate (K)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 1 pc
Electrical system	Three-phase power circuit (only the operation circuit on the fume hood): ● Explosion-proof and pressure resistant operation switch d2G4 ● Explosion-proof and pressure resistant indicator light d2G4 ● Junction box d2G4 Single-phase circuit: ● Explosion-proof and pressure resistant fluorescent lamp Exdes II CT5 ● Explosion-proof and pressure resistant toggle switch d2G4 ● Explosion-proof and pressure resistant socket d2G4 ● Junction box d2G4

Specifications

Model		LDE-120	LDE-150	LDE-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 300kg	Approx. 340kg	Approx. 380kg
Exhaust air volume		28m^3/min	37m^3/min	45m^3/min
Internal static pressure		127Pa (13mmH_2O)		

Model selection list

Ceramics (S)	LDE-120S	LDE-150S	LDE-180S
Ceramic steel plate (k)	LDE-120K	LDE-150K	LDE-180K

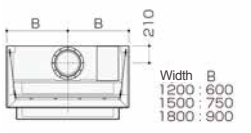
Fume Hoods | For Using Perchloric Acid

LDP

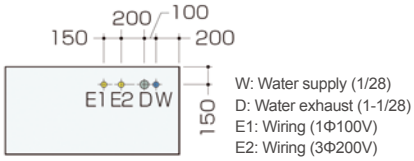
Specialized fume hood for using perchloric acid.

- The interior is equipped with high-temperature resistant PVC panels with excellent chemical resistance.
- Equipped with spraying nozzles for cleaning the inside of the baffle plates.
- To prevent backflow of perchloric acid, the airflow speed at the hood opening is set at 0.5~0.7m/s.
- Equipped with large current power sockets for heaters.
- The lower part can be set with laboratory series storage cabinets and machines.

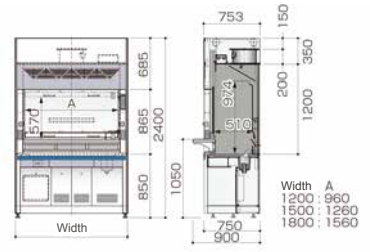
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special board material without asbestos, slit-type buffer plate
Working surface (selection)	Ceramics (S)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A 120 type 2 pcs, 150 type 3 pcs, 180 type 4 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDP-120	LDP-150	LDP-180
External dimensions	Depth×Height	750 (+150)×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 240kag	Approx. 270kg	Approx. 310kg
Exhaust air volume		24m^3/min	30m^3/min	37m^3/min
Internal static pressure		108Pa (11mmH_2O)	88Pa (9mmH_2O)	127Pa (13mmH_2O)

Model selection list

Ceramics (S)	LDP-120S	LDP-150S	LDP-180S

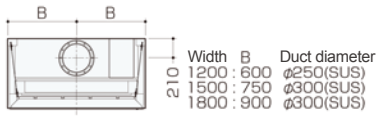
Fume Hoods | For Low-Level RI

LDL

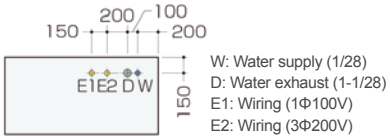
Fume hood suitable for operations using radiation.

- The interior and working surface are both made of stainless steel. The surfaces are smooth, and the joints are caulked, making internal cleaning after use very easy.
- When the door is fully open, the control airflow speed at the hood opening is set at 0.5m/s, which can prevent radiation from reflecting out of the hood.
- The working surface can bear a load of 200Kg, allowing equipment to be placed inside the fume hood.
- The lower part can be set with laboratory series storage cabinets and machines.

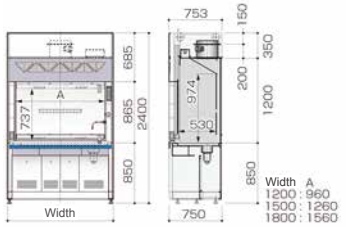
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Stainless steel plate SUS304, caulking treatment
Working surface (selection)	Stainless steel (L)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDL-120	LDL-150	LDL-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 220kg	Approx. 250kg	Approx. 290kg
Exhaust air volume		24m^3/min	30m^3/min	37m^3/min
Internal static pressure		140Pa（14.3mmH_2O）	88Pa（9mmH_2O）	127Pa（13mmH_2O）

Model selection list

Stainless steel (L)	LDL-120L	LDL-150L	LDL-180L

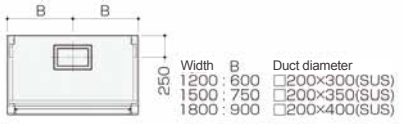
Fume Hoods | For Mid-level RI

LDM

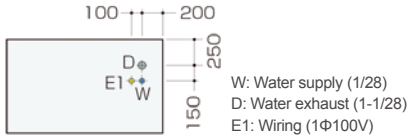
The design is very easy to clean and suitable for fume hoods used with intermediate radiation.

- The internal edges and corners are chamfered, made entirely of the stainless steel, so the air flow is smooth and the cleaning is easy.
- Since it contains lead, the working surface has good load-bearing capacity and a wider depth.
- Equipped with safety devices to prevent door drop, monitor exhaust fan operation.

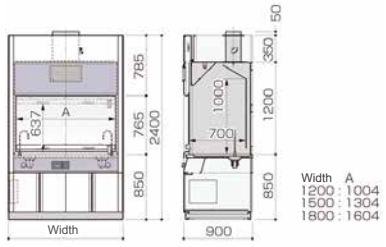
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common Specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	The main unit is made of stainless steel SUS304, integrated with the working surface
Working surface (selection)	Stainless steel (L)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDM-120	LDM-150	LDM-180
External dimensions	Depth×Height	900×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 340kg	Approx. 430kg	Approx. 500kg
Exhaust air volume		21m^3/min	28m^3/min	34m^3/min
Internal static pressure		118Pa (12mmH_2O)	147Pa (15mmH_2O)	157Pa (16mmH_2O)

Model selection list

Stainless steel (L)	LDM-120L	LDM-150L	LDM-180L

Fume Hoods | Walk-in Type

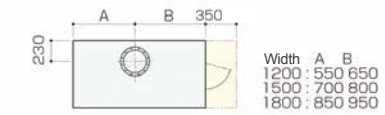
LDW

Designed for experiments with large equipment

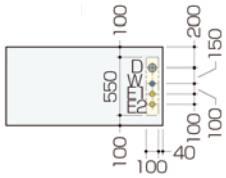
This fume hood has an opening height of 1470mm (effective size) and is the best choice for experiments involving large equipment.

- It features an open viewing and easy to operation design.
- Water faucets are hidden in the side panels, effectively utilizing internal space.
- The front door has a large opening area and uses a gravity balance system for easy opening and closing. The interior is entirely made of stainless steel, offering excellent chemical resistance and durability.
- The front glass door is a two-piece linkage type, with smooth opening and a large opening area.

Exhaust pipe diagram

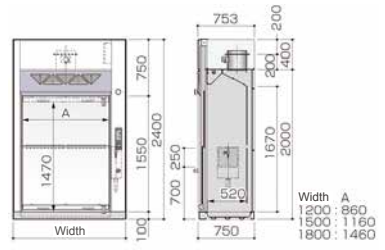


Piping diagram



W: Water supply (1/28)
D: Water exhaust (1-1/28)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Common Specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Stainless steel plate SUS304
Working surface (selection)	Stainless steel (L)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Water faucet	1 pc
Socket	AC220V 10A, 1 pc
Fluorescent lamp	one 120/150 type 30W, and one 180 type 40W
Safety mechanism	Door fall prevention stopper, exhaust delay timer, airflow monitoring

Specifications

Model		LDW-120	LDW-150	LDW-180
External dimensions	Depth×Height	750×2400mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 230kg	Approx. 270kg	Approx. 300kg
Exhaust air volume		21m³/min	27m³/min	34m³/min
Internal static pressure		88Pa (9mmH_2O)	137P (14mmH_2O)	118Pa (12mmH_2O)

Model selection list

Stainless steel (L)	LDW-120L	LDW-150L	LDW-180L

Fume Hoods | With HEPA High-efficiency Filter

LDH

This fume hood is specialized for sealing the highly active powders.

The large opening size ensures that the workspace is secured for experimental operations compared to safety cabinets. The exhaust system is equipped with high-efficiency filters that prevent contamination of operators and workspace through a Bag-in/Bag-out method, allowing safe maintenance.

- Exhaust is conducted from the back of the working surface to prevent the dispersion of contaminants, ensuring effective exhaust.
- No supply air or recirculation, the interior is a negative pressure zone.
- The exhaust system is equipped with high-efficiency filters through a Bag-in/Bag-out method, allowing safe maintenance.
- Front glass door opening is 400mm with sealing performance. It has larger opening.
- The powder containment performance is evaluated based on ISPE (International Society for Pharmaceutical Engineering) SMEPAC (Standards for Minimizing Exposure to Particulates) guidelines, using our independently established internal standards.
- Lighting uses LED lamps, which have a longer lifespan compared to fluorescent lights, reducing maintenance needs.

Common Specifications

Exhaust method	Full exhaust
Powder containment performance	Exposure level <1μg/m³ (internal standards based on ISPE guidelines). Front wind speed: 0.5m/s (at a door opening height of 400mm)
front wind speed	Initial 0.5m/s (at a door opening height of 400mm).
Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	Special asbestos-free board
Working surface (selection)	Trespa Meteon (T)
Glass door	Reinforced glass, 6mm thick, weight-balanced type
Socket	AC220V 10A, 2 pcs
Lighting	LED
Powder trapping elements	High efficiency filter, Initial efficiency filter
HEPA unit	Closed type, Bag-in/Bag-out exchange method
High-efficiency filter	99.99% (for 0.3μm particles)
Safety mechanism	Door drop prevention stopper, exhaust delay timer, airflow monitoring, and HEPA differential pressure gauge

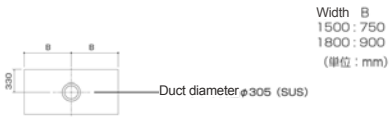
Specifications

Model		LDH-150	LDH-180
External dimensions	Depth×Height	900 (+45)×2700mm	
	Width	1500mm	1800mm
Weight		Approx. 270kg	Approx. 300kg
Exhaust air volume		27m³/min	34m³/min
Internal static pressure		137Pa (14mmH_2O)	118Pa (12mmH_2O)

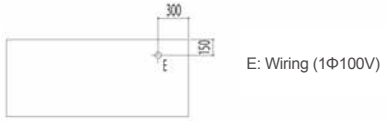
Model selection list

Trespa Meteon (T)	LDH-150T	LDH-180T

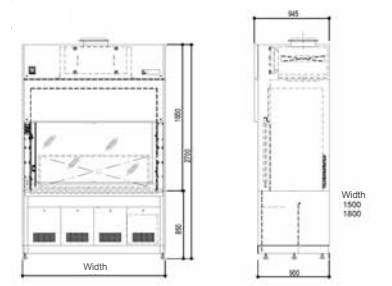
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Fume Hoods | PVC Material

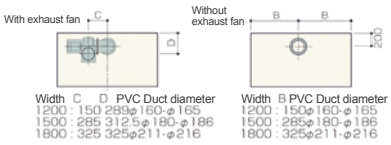
FHV

This fume hood is designed specifically for etching and cleaning in the semiconductor industry.

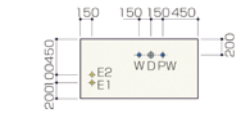
An essential fume hood for semiconductor etching and cleaning. Made entirely of PVC materials, it offers excellent corrosion resistance against strong acids and bases.

- A constant temperature water circulator can be installed beneath the fume hood.
- Both the interior and exterior are made of hard PVC, ideal for use with acids and bases during etching and cleaning processes.
- Using a flow baffle ensures efficient exhaust of denser gases.

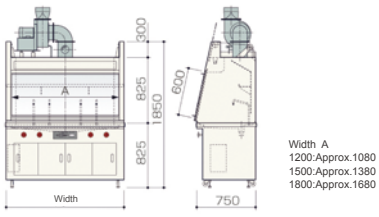
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common Specifications

Interior and exterior material	Hard PVC material, 5mm thick
Working surface (selection)	Hard PVC material, 5mm thick
Door	Transparent PVC material, 5mm thick
Water faucet	120 models: 2 pcs (1 each for tap water and pure water) 150/180 models: 4 pcs (2 each for tap water and pure water)
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type

Specifications

Model		FHV-120	FHV-150	FHV-180
External dimensions	Depth×Height	750×1850mm		
	Width	1200mm	1500mm	1800mm
Weight		Approx. 200kg	Approx. 230kg	Approx. 250kg
Exhaust air volume		10m^3/min	13m^3/min	15m^3/min
Internal static pressure (recommended value)		50Pa (5mmH_2O)	59Pa (6mmH_2O)	40Pa (4mmH_2O)

Model selection list

Without exhaust fan	FHV-120	FHV-150	FHV-180
With exhaust fan	FHV-120B	FHV-150B	FHV-180B
Ceramic steel plate (k)	FHV-120K	FHV-150K	FHV-180K

Fume Hoods | PVC Material

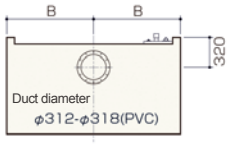
CYV·CYV2

Designed for etching and cleaning processes in electronic manufacturing.

This fume hood allows for versatile configurations of treatment tanks based on usage.

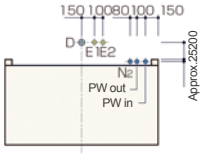
- The entire body is made from acid-resistant (hydrofluoric acid, hydrochloric acid, etc.) hard PVC plastic.
- The working surface is recessed to prevent liquid splashes.
- It adopts the diaphragm valves for precise operation.
- The exhaust section inside the fume hood is designed with sliding baffles to adjust exhaust according to the conditions.
- Standard configuration includes a nitrogen gas curtain. (CYV, CYV2)
- Standard configuration includes waste liquid recovery tanks for separate collection. (CYV2 Type)

Exhaust pipe diagram



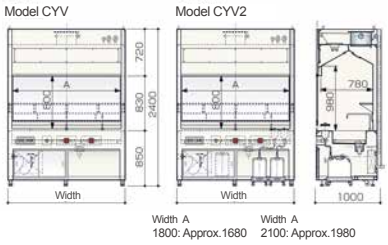
Width B
1800 : 900
2100 : 1050

Piping diagram



PW: Pure water (16A)
D: Water exhaust (40A)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Width A
1800: Approx.1680

Width A
2100: Approx.1980

Common Specifications

Interior and exterior material		Hard PVC material, 5mm thick
Working surface		Hard PVC material, 5mm thick
Door		Transparent PVC material, 5mm thick
Water faucet		2 pcs
Socket		AC220V 10A, 2 pcs
Air gun		Nitrogen gas, 1 pc
Fluorescent lamp		40W, 1 pc
CYV2 type	Drain sink	Made of hard PVC, 2 pcs
	Waste liquid tank	Plastic water tank, 20L with trolley, 2 pcs

Specifications

Model		CYV-180V·CYV2-180V	CYV-210V·CYV2-210V
External dimensions	Depth×Height	1000×2400mm	
	Width	1800mm (180V)	2100mm (210V)
Weight	CYV type	Approx. 350kg	Approx. 400kg
	CYV2 type	Approx. 400kg	Approx. 450kg
Exhaust air volume		21m^3/min	24m^3/min
Internal static pressure (recommended value)		70Pa (7mmH_2O)	90Pa (9mmH_2O)

Model selection list

CYV type	CYV-180V	CYV-210V
CYV2 type	CYV2-180V	CYV2-210V

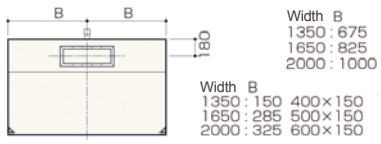
Fume Hoods | Class 100 of cleanliness

CYF

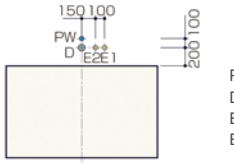
Best suited for operations in high cleanliness environments that require local exhaust.

- This fume hood features a corrosion-resistant exterior. The interior is available in two models according to the purpose of use (PVC/ stainless steel).
- CYF-V type: resistant to strong acids and bases, made of hard PVC.
- CYF-L type: resistant to organic solvents, made of stainless steel.
- Class 100 cleanliness; high-efficiency filter collects 99.97% of 0.3μm particles.
- The working surface features a perforated plate with a drainage structure underneath.
- Water valves, sockets, and switches are installed at the front, enhancing operability and safety.

Exhaust pipe diagram

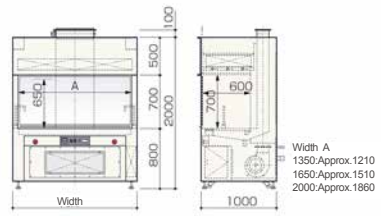


Piping diagram



PW: Pure water (13A)
D: Water exhaust (40A)
E1: Wiring (1Φ100V)
E2: Wiring (3Φ200V)

Dimension diagram (mm)



Common Specifications

Exterior material		Hard PVC material, 5mm thick.
Interior material		V type: Hard PVC plastic; L type: Stainless steel SUS304
Working surface	Material	V type: Hard PVC plastic; L type: Stainless steel SUS304
	Load capacity	100kg
Door		Transparent PVC material, 5mm thick
Movable structure for the front door		Weight balance type
Water faucet		Made of PV, 2 pcs
Socket		AC220V 10A, 2 pcs
Fluorescent lamp		Model 130, 20W, Model 160/200, 40W, each with 3 pcs

Specifications

Model		CYF-130	CYF-160	CYF-200
External dimensions	Depth×Height	1000×2100mm		
	Width	1350mm	1650mm	2000mm
Weight		Approx. 400kg	Approx. 420kg	Approx. 470kg
Exhaust air volume		29m^3/min	36m^3/min	43m^3/min
Supply air volume		22m^3/min	28m^3/min	33m^3/min
Exhaust fan internal static pressure		98Pa (10mmH_2O)		
Air discharge speed		Initial speed approx. 0.5 m/s, final speed approx. 0.2 m/s		
Airflow direction		Vertical direction		
HEPA	Material	The collection efficiency for 0.3μm particles is 99.97%		
	Dimensions	610×610×150mm	760×610×150mm	915×610×150mm
	Quantity	2 pcs		
Cleanliness		Class 100		

Model selection list

PVC (V)	CYF-130V	CYF-160V	CYF-200V
Stainless steel (L)	CYF-130L	CYF-160L	CYF-200L

Fume Hoods | Class 100 of cleanliness

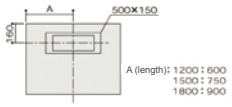
CYG

Most suitable fume hoods for clean environment testing.

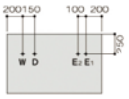
Fume hoods used for experiments involving acids or organic solvents in high cleanliness environments.

- Exhaust volume decreases by about 40%, while maintaining a working space cleanliness level of 100.
- Maintenance of HEPA high-efficiency filters, coarse filters, and fans can be performed from the front door, reducing the maintenance space required by traditional models.
- The exterior of the machine is made of steel plate, with the following internal options:
  CYG-V: Resistant to strong acids/bases, interior made of PVC material.
  CYG-L: Resistant to organic solvents, interior made of stainless steel material.

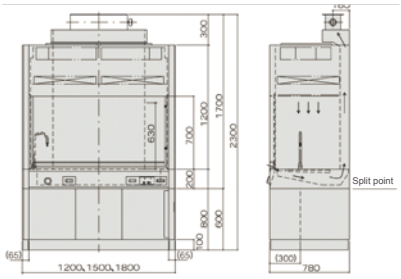
Exhaust pipe diagram



Piping diagram



Dimension diagram (mm)



Common Specifications

Interior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Interior material	CYG-V: Hard PVC; CYG-L: Stainless steel plate
Operating table	CYG-V: Hard PVC; CYG-L: Stainless steel plate
Front door	CYG-V: Transparent hard PVC, 5mm thick; CYG-L: Reinforced glass, 6mm thick
Door movement	Weight balance opening and closing up and down
Working surface load capacity	50kg
Water faucet	Made of PVC, 1 pc
Socket	AC220V 10A, 2 pcs
Fluorescent lamp	One 30W for 120/150 type, one 40W for 180 type
Safety mechanism	Door drop prevention stopper, exhaust delay timer

Specifications

Model		CYG-120	CYG-150	CYG-180
External dimensions	Depth×Height	780×2300mm		
	Width	1200mm	1500mm	1800mm
Weight		320kg	350kg	380kg
Exhaust volume		16m^3/min	21m^3/min	26m^3/min
Air intake volume		12m^3/min	16m^3/min	20m^3/min
Average wind speed		Initial 0.4 m/sec, final 0.25 m/sec		
Internal static pressure		59Pa	88Pa	127Pa
Airflow direction		Vertical downward		
HEPA High-efficiency filter	Performance	Collection efficiency for 0.3um particles over 99.9%		
	Dimensions	915×610×65mm	610×610×65mm	760×610×65mm
	Quantity	1	2	
Cleanliness		Class 100		
Power supply		3-phase AC380V		

Model selection list

Hard PVC	CYG-120V	CYG-150V	CYG-180V
Stainless steel plate	CYG-120L	CYG-150L	CYG-180L

Fume Hoods | Compact

MS· MV

Safe, convenient, space-saving, and easy to install.

Achieved safety, convenience, and space-saving in a small fume hood, with interior materials selectable based on the chemicals used, stainless steel (for organic solvents) or hard PVC (for acids). Product installation does not require wiring or large-scale piping construction, making installation simple.

- Airflow adjustment can be made by sliding the glass door up and down, in accordance with the experimental content.
- Efficient exhaust can be achieved through pneumatic components with good rectifying effects.
- Equipped with exhaust fans, waste liquid devices, and various optional items to meet multiple customer applications.
- A large capacity recycling device can be set up for efficient recovery.

Common Specifications

Model	MS90	MV90
Interior material	Stainless steel plate	Hard PVC
Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating	
Operating table	Stainless steel plate	Hard PVC
Glass door	Reinforced glass, 5mm thick, weight balance type	
Working surface load capacity	50kg	
Fluorescent lamp	8W×2	
Socket	AC220V 10A, 2 pcs	

Specifications

Model	MS90	MV90
External dimensions	W900×750×1850mm	
Weight	Approx. 130kg	Approx. 120kg
Exhaust air volume	7m^3/min	
Internal static pressure (recommended value)	40Pa (4mmH_2O)	

Fume Hoods for Powder Weighing and Sealing | Weighing and Sealing

ST1

Made in Japan

Fume hood for preventing exposure during micro-weighing of highly bioactive powder.

Small tabletop fume hood dedicated to safe sealing and weighing of highly bioactive powder. Designed considering energy saving, simple structure, and safety cleanliness.

- The rectifying effect of horizontal airflow from the front opening to the back allows for micro-weighing.
- Equipment setup only requires 100V power supply, no additional exhaust equipment is needed.

- Standard granite working surface required for stable weighing with analytical balances.
- Standard dual airflow sensing system (wind speed state displayed in 3 segments).
- Use safely replaceable Bag-out type HEPA filter.
- The power cord for the balance can be passed to the outside through power cord holes on the left and right.
- Dual-layer waste disposal bag design allows for safe recycling of waste during cleanup.
- Sealing performance: European specification EN14175, American specification
- ASHRAE110. Safe Bridge powder sealing performance experimental verification passed.

Specifications

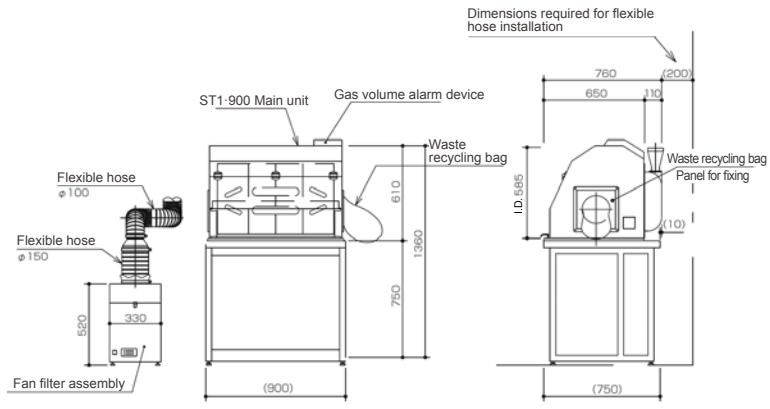
Model	ST1-900	ST1-1200	ST1-1500
System configuration	Main unit, airflow alarm, piping, filtration system 1 unit		Main unit, airflow alarm, piping, filtration system 2 units
Material	Acrylic resin		
Working surface	Granite		
Dimensions (W×D×Hmm)	900×750×635	1200×750×635	1500×750×635
Body weight	50kg	70kg	90kg
Power supply	AC100V 10A		

System configuration example

Dual HEPA filtration system

HEPA + solvent filtration system

Dimension diagram (mm)



Fume Hoods for Powder Weighing and Sealing | Weighing and Sealing

ST1-BP

Made in Japan

Fume hood dedicated for handling powder raw materials (bulk) in g to kg units.

Fume hood for preventing exposure during repackaging or mixing operations of bulk trial materials such as pharmaceutical raw materials. Designed considering energy saving, simple structure, and safety cleanliness.

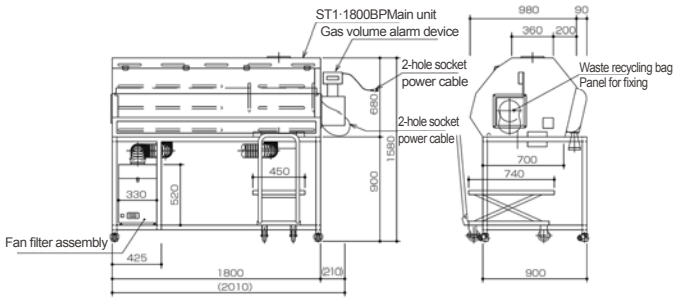
- Easily set up bulk drums with a height-adjustable trolley.
- Ample workspace with a working surface made of easily cleanable stainless steel.
- Equipment setup only requires a 100V power supply, no additional exhaust equipment is needed.

- Standard equipped with a dual airflow sensing system.
- Use safely replaceable Bag-out type HEPA filter.
- Dual-layer waste disposal bag design allows for safe recycling of waste during cleanup.
- Standard equipped with stainless steel stand.
- Bulk drum insertion port standard equipped with local exhaust mechanism.
- ISPE (International Society for Pharmaceutical Engineering) recommended simulation powder sealing performance experimental verification passed.

Specifications

Model	ST1-1200BP	ST1-1500BP	ST1-1800BP
System configuration	Main unit, stand, airflow alarm, piping, filtration system 2 units		
Material	Acrylic resin		
Working surface	Stainless steel plate		
Dimensions (W×D×Hmm)	1200 (+210)×980×600 (+900)	1500 (+210)×980×600 (+900)	1800 (+210)×980×600 (+900)
Body weight	110kg	130kg	150kg
Power supply	AC100V 10A		

Dimension diagram (mm)



Fume Hoods for Powder Weighing and Sealing | For Nano Material Weighing and Sealing

NE1

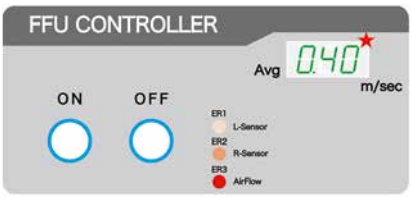
Made in Japan

Fume hood for preventing exposure of nano material powder during sealing and weighing. (Fan and filter component separation type).

Specially designed for handling nano material dust, a small tabletop sealing fume hood that can be safely sealed, suitable for weighing operations.

- The high-performance rectifying effect from the front opening to the back allows for micro-weighing.
- Equipment setup only requires a 100V power supply, no additional exhaust equipment is needed.
- The body material is designed considering non-conductivity and easy cleaning, using aluminum and SUS material; the window material is reinforced glass.
- The front door uses a vertical sliding track and flip-style glass door combination.
- Dual wind speed detection sensors and airflow alarm system are installed on the left and right of the front opening.
- No working surface, can be installed on existing experimental benches (anti-vibration tables).
- Use safely replaceable Bag-out type HEPA filter.
- Using dual-layer waste recycling bags allows for safe recycling of waste.

Control panel



★ Wind speed display (average wind speed) m/sec
Error 1 flashing (Left side wind speed warning)
Error 2 flashing (Right side wind speed warning)
Error 3 indicator on (Abnormal wind speed)

Specifications

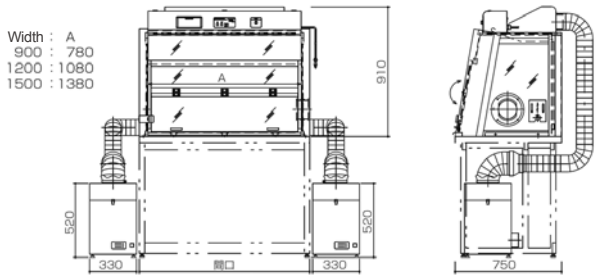
Model	NE1-900	NE1-1200	NE1-1500
System configuration	Main unit, piping, fan and filter component (floor type) 1 unit	Main unit, piping, fan and filter component (floor type) 2 units	
Material	Reinforced glass, aluminum, SUS304		
Main unit external dimensions (excluding sloping part)	W900×D750×H910mm	W1200×D750×H910mm	W1500×D750×H910mm
Main unit internal dimensions (excluding sloping part)	W780×D430×H655mm	W1080×D430×H655mm	W1380×D430×H655mm
Fan and filter component (floor) external dimensions	W330×D375×H520mm	W330×D375×H520mm	W330×D375×H520mm
Weight (main unit)	52kg	64kg	74kg
Weight (fan and filter component)	23 kg (23 kg×1 unit)	64 kg (23 kg×2 units)	
Power supply	Single phase AC100V 15A		

Options

Exhaust fan silencer
Component to reduce the operating noise of the exhaust fan.

Solvent filtration component
Activated carbon filtration component for solvent recovery.

Dimension diagram (mm)



Fume Hoods for Powder Weighing and Sealing | For Nano Material Weighing and Sealing

NE2

Made in Japan

Fume hood for preventing exposure of nano material powder during sealing. (Fan and filter component integrated type)

Specially designed for handling nano material dust, a small tabletop sealing fume hood that can be safely sealed, suitable for multiple applications beyond weighing.

- Equipment setup only requires a 100V power supply, no additional exhaust equipment is needed.
- The body material is designed considering non-conductivity and easy cleaning, using aluminum and SUS material; the window material is reinforced glass.
- The front door uses a vertical sliding track and flip-style glass door combination.
- Dual wind speed detection sensors and airflow alarm system are installed on the left and right of the front opening.
- The front glass door opening and closing control is via wind speed (full open, full close with 2-segment automatic switching).
- Dual wind speed detection sensors and airflow alarm system are installed on the left and right of the front opening.
- Use safely replaceable Bag-out type HEPA filter.
- Using dual-layer waste recycling bags allows for safe recycling of waste.

Specifications

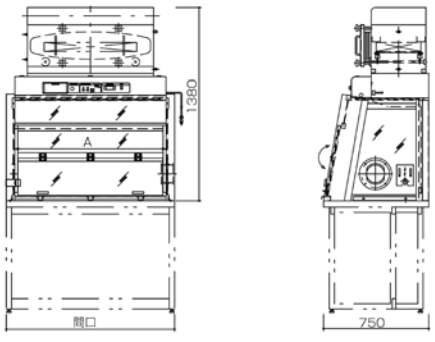
Model	NE2-1200	NE2-1500
System configuration	Main body, ductwork, fan and filter components (upper mounted type) 1 unit	
Material	Reinforced glass, aluminum, SUS304	
Main unit external dimensions (excluding sloping part)	W1200×D750×H1380mm	W1500×D750×H1380mm
Main unit internal dimensions (excluding sloping part)	W1080×D430×H655mm	W1380×D430×H655mm
Weight (main unit)	124kg	134kg
Power supply	Single phase AC100V 15A	

Front side opening type

Fully closed | Working opening (operating state) | Maximum opening (for equipment moving, etc.)

Dimension diagram (mm)

Width : A
1200 : 1080
1500 : 1380



Fume Hoods for Powder Weighing and Sealing | For PM2.5 Measurement

FCCZ

Made in Japan

Realizes a micron measurement environment and can measure PM2.5 mass concentration in a tabletop fume hood.

Constant filter weight and weighing control

The fume hood maintains the filter weighing conditions at a temperature of 21.5°C and a relative humidity of 35% RH, suitable for use with a 1µg precision balance. Additionally, with the optional filter membrane holder, storage of 42 pieces/section×2 sections can be achieved.

Unique airflow control function

The independently developed low airflow, low wind speed airflow control function provides a stable airflow environment inside the fume hood.

High operability flexible closure door

The device's unique flexible closure door ensures a free working area in all directions when the front door is closed, achieving higher operability compared to fully enclosed types.

Unique vibration control structure

The environmental control system and door operation do not affect the vibration control structure of the weighing section, allowing for stable weighing when combined with the unique airflow control.

Spacious fume hood space

A width of 1000mm provides high operability, with a dedicated filter membrane holder (optional) for constant weighing and analysis pre-processing tasks within the hood.

Inclined front closure door

The inclined front closure door enhances visibility during operation.

Exhaust Gas Washing Equipment for Fume Hoods | Wet Type

CRW3

Made in Japan

Water-washing wet-type exhaust treatment device placed beside the fume hood, with excellent treatment effect and easy to maintain.

- It can handle large airflow and can be combined with fume hoods or exhaust hoods for exhaust treatment.
- Reduce internal pressure loss (about 10% reduction compared to previous products), and the exhaust fan can handle low pressure loss.
- It can reduce total cost and noise.
- High efficiency.

Treatment effectiveness

Gas name	Molecular formula	Cleaning liquid	Removal effect
Hydrogen chloride	HCL	H_2O	Over 85%
Ammonia	NH_3	H_2SO4	Above 95%
Chlorine	CL	NaOH	Above 95%
Sulfur dioxide	SO_2	NaOH	Above 90%
Hydrogen fluoride	HF	NaOH	Above 90%

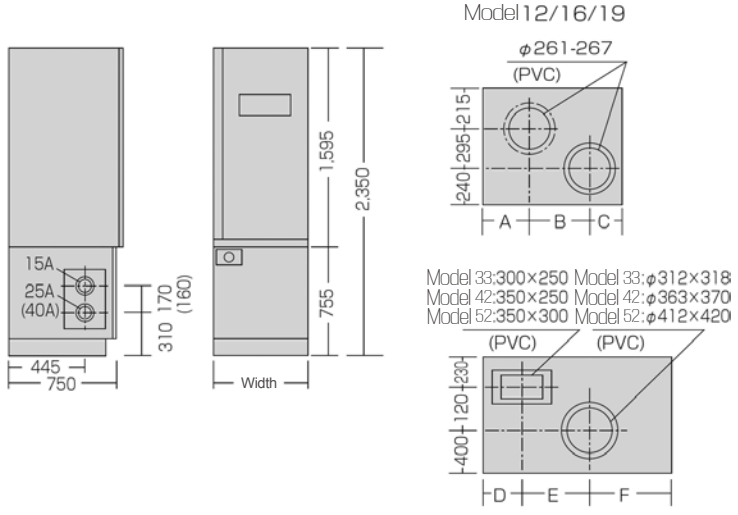
Common specifications

Washing method	Packed tower type
Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Washing tower	Hard PVC
Washing tank	Hard PVC
Option	Fume hood connection pipe

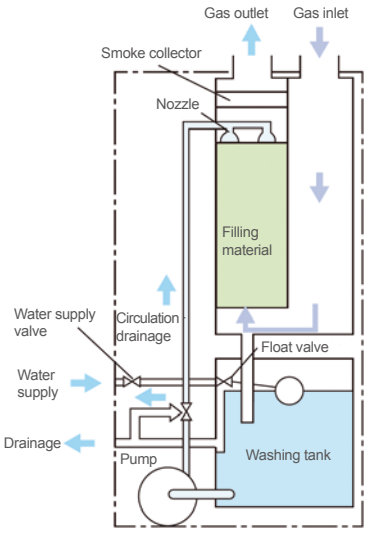
Model selection list

Model		CRW3-12	CRW3-16	CRW3-19	CRW3-33	CRW3-42	CRW3-52
External dimensions	Depth×Height	750×2350mm PVC					
	Width	600mm		700mm	1100mm	1350mm	1600mm
Weight		245 kg		290kg	350kg	480kg	590kg
Processing air volume		12m³/min	16 m³/min	19 m³/min	33 m³/min	42 m³/min	52 m³/min
Internal static pressure (Pa/mm H_2O)		196/20	294/30	343/35	392/40		
Water tank capacity		100L		120L	110L	180L	230L
Circulation pump (50/60hz)		3-phase 200v 0.15/0.18kw 1 unit, 40kg, 60kg			3-phase 200v 0.26kw 2 units, 40kg, 60kg		

Dimensions diagram • exhaust pipe diagram (mm)



Structural diagram



Exhaust Gas Washing Equipment for Fume Hoods | For Acidic Gases

CRH·CRB

It can eliminate white smoke produced by acidic gases.

Common features

- It can remove acidic gas white smoke

  It can remove white smoke from hydrochloric acid, nitric acid, sulfuric acid, and perchloric acid (but CRH-20S cannot remove white smoke from perchloric acid).

- Type 2 standardization according to use and air volume

  Bubble type (CRB-2) can remove high concentration white smoke with a small airflow of 1.5m³/min, and is more efficient when used with small hoods. Filter type (CRH-20) can handle air volumes of 10~20m³/min, suitable for exhaust treatment of fume hoods.

- Space-saving design suitable for indoor use

  Bubble type (CRB-2) width is 800mm, filter type single unit width is 1350mm (CRH-20S), composite type (CRH-20W) is 1800mm, with a compact depth of 750mm, easy for indoor placement.

Application

Recommended for use in steel, analysis, food, chemical, semiconductor, research institutions, analysis industries, radiation environment analysis, etc., for the removal of white smoke (acidic fumes).

※ Removal of acidic fumes (white smoke)

White smoke is produced when acidic gases generated from acid heating combine with moisture in the atmosphere to form particles, which are white smoke. These particles have a diameter of 0.05~0.5μm and are highly mobile, a phenomenon known as Brownian motion. This characteristic causes white smoke and spray particles from wet filters to be directly discharged into the atmosphere. To remove such acidic smoke (white smoke), a white smoke removal device is required.

Filter type (CRH series)


CRH-20S

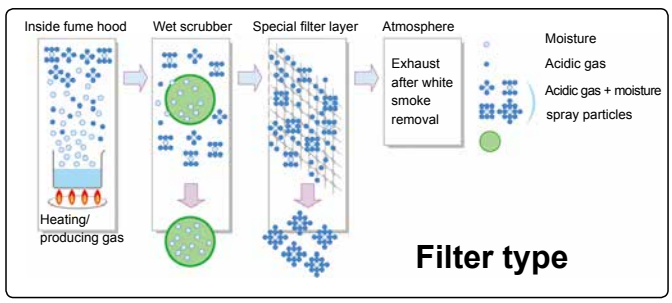
Features

1. For larger particle removal of hydrochloric acid, sulfuric acid, nitric acid, and hydrofluoric acid, use the single unit (CRH-S type), for higher quantities, use the composite type (CRH-W type)
2. For perchloric acid, choose the composite type. (CRH-W type)
3. Equipped with a wet scrubber for pre-treatment, no additional purchase needed.
4. Standard equipped with a differential pressure gauge to clarify maintenance periods.

White smoke removal method

White smoke is captured and condensed into liquid through special fiber filter surfaces, with moisture, gas, and smoke expelled from the wet filter, being collected and condensed


CRH-20W



Filter type

Bubble type (CRB series)


CRB-2

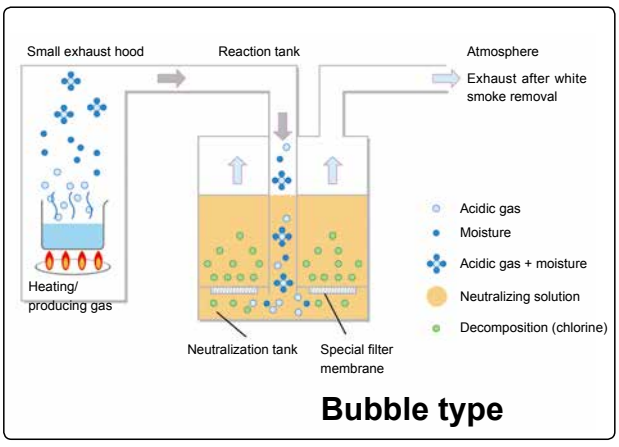
Features

1. It can remove high concentration white smoke with a small airflow of 1.5m³/min when used with small hoods, achieving higher efficiency.
2. Equipped with fan control to ensure airflow even with increased pressure loss.
3. Standard equipped with a differential pressure gauge to clarify maintenance periods.

White smoke removal method

Eliminate white smoke through chemical reactions and special fiber filter surface impact effects.

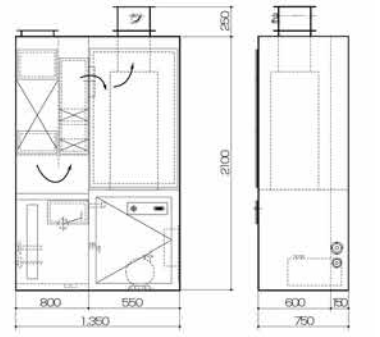

CRBT-2



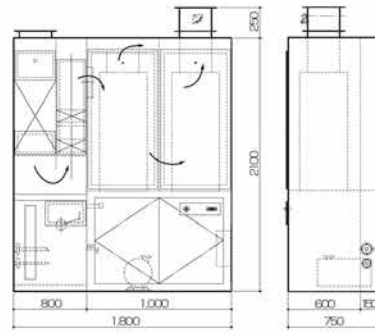
Bubble type

Made in Japan

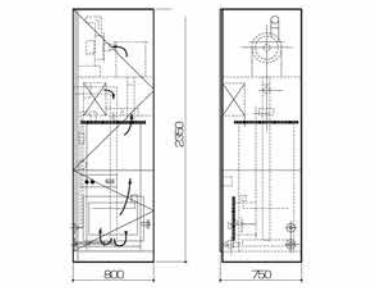
Dimension diagram (mm)



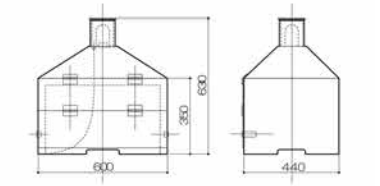
CRH-20S



CRH-20W



CRB-2



CRBT-2

Product name		Filter type white smoke removal device		Bubble type white smoke removal device
Model		CRH-20S	CRH-20W	CRB-2
System		Packing tower and fiber filter type		Porous body filter and bubble type
Performance	White smoke treatment	Visually imperceptible white smoke		
	Processing air volume	10~20m³/min		1.5m³/min
	Internal static pressure	0.5~1.5kPa		5~10kPa
	Target acidic chemicals	Hydrochloric acid, nitric acid, sulfuric acid, hydrofluoric acid	Hydrochloric acid, nitric acid, sulfuric acid, hydrofluoric acid, perchloric acid	Hydrochloric acid, nitric acid, sulfuric acid, hydrofluoric acid, perchloric acid
	Noise	—		Approximately 75 dB(A)
Composition	Exterior material	Hard PVC		Cold-rolled steel plate
	Body material	Hard PVC		
	Operation switch	Yes		
	Differential pressure gauges	Yes		
	Fan control	—		Yes
	Filling material	Polypropylene		—
	Smoke collector	Polyvinyl chloride		—
	Number of special filters	Fiber filter 1 unit	Fiber filter 2 units	Porous filter 3 units
	Filter type (main materials)	Polypropylene, polyester, polyethylene		Polypropylene, polyester
	Eliminator	Polyvinyl chloride		
	Pump	3-phase 200V 0.75kw		—
	Water tank capacity	230L		50L
	Intake pipe diameter	Diameter 250		Diameter 65
	Exhaust pipe diameter	Diameter 250		Diameter 50
	Water supply	Diameter 16		Diameter 20
	drainage	Diameter 25		Diameter 25
	Exhaust fan	Optional		Blower (Single-phase 100V 800W)
	Accessories	-		Silencer 1 Unit
Power supply		3-phase 200V 15A		Single-phase 100V 15A
Dimensions (W×D×Hmm)		1350×750×2100	1800×750×2100	800×750×2350
Weight		Approx. 400kg	Approx. 450kg	Approx. 110kg
Body division		Divided into 28 sections (800+550) from the front direction	Divided into 2 sections (800+1000) from the front direction	Integrated type
Options		Fume hood link signal line		
		Fume hood connection pipe		Intake connection port, intake pipe, fume hood connection port
				Small exhaust hood (CRBT-2 type) transparent heat-resistant Polyvinyl Chloride (W600×D440×H630mm)

Performance

Test reagent name (test reagent concentration)	Chemical formula	Cleaning liquid	Filter type / CRH type		Bubble type / CRB type
			Visible white smoke	Visible white smoke	Visible white smoke
			CRH-20S	CRH-20W	
Hydrogen chloride (37% solution)	HCL	NaOH	No white smoke	No white smoke	No white smoke
Nitric acid (63% solution)	HNO_3	NaOH	No white smoke	No white smoke	No white smoke
Sulfuric acid (49% solution)	H_2SO_4	NaOH	No white smoke	No white smoke	No white smoke
Perchloric acid (70% solution)	$HCLO_4$	NaOH	Trace residue	No white smoke	No white smoke
Hydrofluoric acid (55% solution)	HF	NaOH	No white smoke	No white smoke	No white smoke

<Testing method>
Washing solution: alkaline solution
Generation conditions: heating temperature 250°C, test reagent amount: 10 beakers with 5mL~20mL each
Generation time: 30~60 min

Elimination example: CRH-20W removes perchloric acid white smoke

Source of generation

before device setup

after device setup

<Generation conditions> Heating temperature: 250°C Test reagent amount: 10 beakers with 100cc each

Exhaust Gas Washing Equipment for Fume Hoods | Dry Type

CRF3

Made in Japan

Dry type device with adsorbent placed beside the fume hood, allowing for high-efficiency exhaust treatment with adsorbents such as activated carbon and chemical adsorbents (4 types) selected according to the target gas.

- It can handle large airflow exhaust.
- Standard equipped with a cumulative timer to monitor the usage time of the adsorbent.
- When the ceiling is too low to set up a fume hood with a scrubber, this model can be selected.

Common specifications

Exterior material	Cold-rolled steel plate, surface chemical-resistant powder coating
Internal equipment · adsorbent	Selection
Differential pressure gauges	0~490Pa (0~50mmH_2O)
Cumulative timer	0~9999.9h
Optional	Fume hood connection pipe

Model selection list

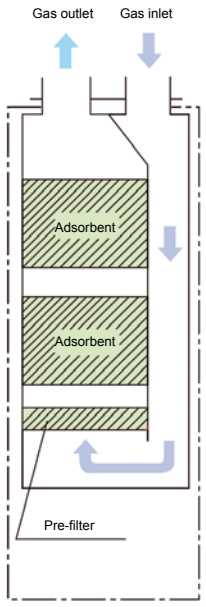
		CRF3-12L	CRF3-19L	CRF3-45L	CRF3-12V	CRF3-19V	CRF3-45V
Interior material		SUS			PVC		
Adsorbent		Activated carbon · chemical adsorbent (A2, E2, F, O2)					
External dimensions	Depth×Height	750×2350mm					
	Width	650mm	750mm	1050mm	650mm	750mm	1050mm
Weight		180kg	240kg	350kg	180kg	240kg	350kg
Processing air volume (m^3/min)		12	16~19	28~45	12	16~19	28~45
Internal pressure loss (Pa/mmH_2O)		294/30	343/35	294/30~490/50	294/30	343/35	294/30~490/50
Adsorbent weight		30kg	40kg	60kg	30kg	40kg	60kg

Adsorption selection table

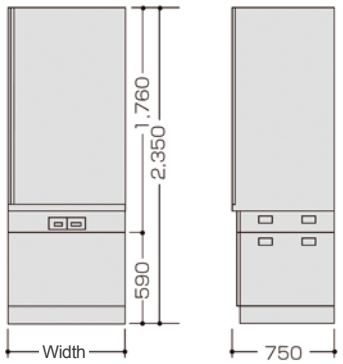
	Activated carbon	Chemical adsorbent			
Level	K	A2	E2	F	O2
Target gases	Benzene	Hydrochloric acid	Hydrogen sulfide	Sodium hydroxide	Ozone
	Toluene	Sulfuric acid	Sulphurous acid gas	Ammonia	Chlorine
	Xylene	Acetic acid	Ammonia	Ammonia	Hydrogen Per-oxide
	Halogens	Fluoric acid	Ethylene		
	Hydrocarbon	Phosphoric acid			
		Nitric acid			

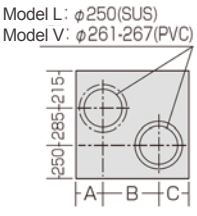
Combination row

Structural diagram

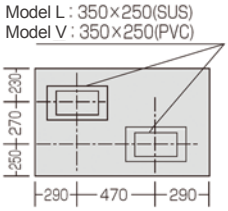


Dimensions diagram • exhaust pipe diagram (mm)





Type 12/19



Type 45

Dimension table (mm)

Model	12	19
A	225	275
B	200	200
C	225	275

2

Clean Benches

Contents

Achieving a clean environment and comfort • space-saving

From advanced technology to food processing, clean machines are widely used in various fields. Clean benches are the most versatile devices in clean machines, providing a clean environment required in all fields while also offering a comfortable space.

Pursuing cleanliness and comfort, compact and easy-to-use clean benches are available in basic industrial types and those equipped with sterilization lamps and gas burners. Industrial types are divided into vertical airflow and horizontal airflow types, with vertical airflow types further divided into non-recirculating and recirculating types, allowing selection based on usage.

Compared to previous products, the placement space has been reduced and operability has improved, making clean benches more user-friendly, giving an intelligent, transparent impression, and a refreshed design. When powders and other substances must be operated in low wind speed environments, a speed controller for blowing air can be optionally installed.

Compatible product combination examples

Features

Compact space-saving design

While retaining the workspace of previous products, the depth dimension has been compactly designed to 770mm. Matching the depth dimension of Laboratory Benches facilitates laboratory layout.

Low pressure loss thin HEPA filter

Thin and low-pressure loss HEPA filters that are easy to replace.

Standard width of 1910mm

Standardized width of 1910mm ensures a spacious working space, allowing 2 people to work simultaneously. Previously models with a width of 840mm have also expanded to 980mm, improving operability.

Improved operability

The operation panel is easier to view, and an R-arc processing is implemented in front of the working surface, achieving comfortable operability. The rear side of the working surface features a 45-degree sloped surface, preventing waste residue, making cleaning tasks easier.

Convenient maintenance

The front filter and fan are set below, allowing easy maintenance from the front. Furthermore, the degree of blockage of the front filter is also easy to determine.

Equipped with dust collection efficiency measurement hole

Equipped with an installation hole for a nozzle to measure the dust collection efficiency of the HEPA filter after installation.

Speed controller (optional)

When powders must be operated in low wind speed environments, a speed controller for blowing air can be optionally installed. The wind speed is displayed digitally, allowing for accurate operation. Since the speed can be adjusted via a potentiometer, even if filter blockage causes wind speed changes, adjustments can be made within the capacity range of the blower, thus extending the life of the filter.

Standard width of 1910mm

Improved operability (R-arc processing in front of the working surface)

Sloped area on the inside of the working surface

Convenient maintenance (front filter • fan)

Dust collection efficiency measurement nozzle

Speed Controller (Optional)

Clean Benches for Biology | Biological Use, Basic Type

ADS-UG

Non-recirculating type blowing from the top of the workspace to the front and recirculating type returning air from the working surface.

- Depending on needs, sterilization lamps and gas spray lamps can be standard or optional.
- From a safety perspective, sterilization lamps or the door cannot be used when not closed.
- A speed controller for adjusting wind speed can be installed (optional).

Model description

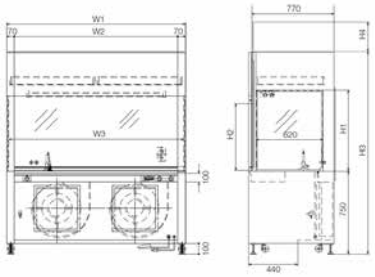
ADS 131 S M U V

- V: speed controller
- U: sterilization lamp / G: gas spray lamp / UG: sterilization lamp & gas spray lamp
- Working Height: M: 720mm / H: 875mm
- Airflow Mode: S: basic type: vertical non-recirculating / R: recirculating type: vertical recirculating
- All Dimensions: 101: 980mm / 131: 1300mm / 161: 1600mm / 191: 1910mm
- Airflow Vertical Type

Specifications

Type		ADS101S □□		ADS131S □□		ADS161S □□		ADS191S □□	
		M	H	M	H	M	H	M	H
Airflow direction		Vertical direction s: basic type (non-recirculating) r: recirculating type							
Performance	Cleanliness	Class 100							
	Blowing wind speed (m/sec)	Initial 0.40 or more, final approximately 0.20							
	Illuminance (lx)	1000 (center of working surface)							
	Working surface load capacity (kg)	50							
	Air volume	Approx.13 m^3/min		Approx.17 m^3/min		Approx.22 m^3/min		Approx.26 m^3/min	
Composition	Exterior material	Cold-rolled steel plate (chemical resistant powder coating)							
	Internal material	Stainless steel (SUS304), brushed finish							
	Working surface	Stainless steel (SUS304), brushed finish							
	Front door	Tempered glass							
	HEPA filter (mm)	915×610×65/1 pc		610×610×65/2 pcs		760×610×65/2 pcs		915×610×62/2 pcs	
		Collection efficiency for 0.3um particles over 99.9%							
	Coarse filter	400×400×15/1 pc		400×400×15/2 pcs					
	Socket	220V 5A, 2 pcs							
	Fluorescent lamp	32W×2				40W×2			
	Air blower	150W×1		120W×2				150W×2	
	Level adjustment	Adjusted via legs (-18~+40mm)							
	Differential pressure display	Differential pressure gauges							
	Gas spray lamp (G type)	1 unit / ignition type (operational use only)							
	Sterilization lamp (U type)	15W×1		15W×2				15W×3	
Structure	Body shape	Integrated type							
	Air blower	Lower part set							
Overcurrent protector		Leakage circuit breaker, single-phase AC220V 20A							
Power supply		Single phase AC220V 15A							
Working space height (mm)		720	875	720	875	720	875	720	875
External dimensions (mm)		W980×D770		W1300×D770		W1600×D770		W1910×D770	
Total height (when door is open mm)		1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)
Weight (kg)		180	200	220	240	250	270	290	320
Accessories		Leg adjustment fasteners (4 pcs)							
Usage environment conditions		Temperature 5℃~35℃, humidity below 85% RH							
Options		Wind speed controller: blowing wind speed display and variable wind speed device							

Dimension diagram (mm)



Model		ADS101		ADS131		ADS161		ADS191	
		M	H	M	H	M	H	M	H
Height (mm)	H1	720	875	720	875	720	875	720	875
	H2	600	755	600	755	600	755	600	755
	H3	1820	1975	1820	1975	1820	1975	1820	1975
	H4	260	415	260	415	260	415	260	415
Width (mm)	W1	980		1300		1600		1910	
	W2	840		1160		1460		1770	
	W3	940		1260		1560		1870	

Clean Benches for Biology | Biological Use, Forced Circulation Exhaust Type

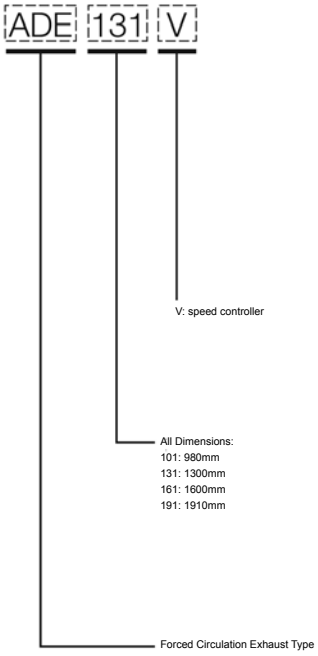
ADE

Clean and safe forced circulation exhaust type.

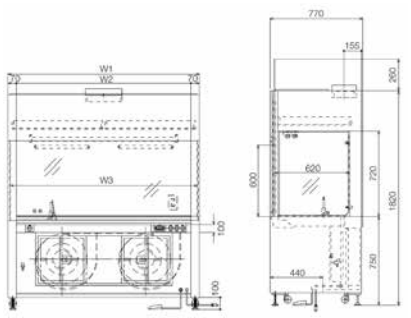
- High cleanliness of the working space ensures negative pressure in the working area, preventing the leakage of contaminated gases to the outside. Operators and the laboratory are not affected.
- The exhaust port is also equipped with a HEPA filter as standard.
- It is not a device for handling pathogenic bacteria, etc., and a safety cabinet for biohazard products is required.

Model description

Model description



Dimension diagram (mm)



Model		ADE101	ADE131	ADE161	ADE191
Width (mm)	W1	980	1300	1600	1910
	W2	840	1160	1460	1770
	W3	940	1260	1560	1870

Specifications

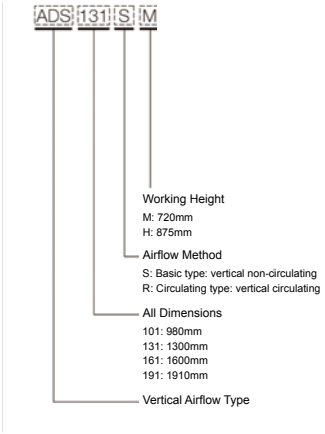
Type			ADE101	ADE131	ADE161	ADE191
Airflow direction			Vertical direction forced circulation type (negative pressure)			
Performance	Cleanliness		Class 100			
	Blowing wind speed (m/sec)		Initial 0.35 or more, final approximately 0.17			
	Illuminance (lx)		1000 (center of working surface)			
	Working surface load capacity (kg)		50			
	Air volume	Working space	Approx. 12 m^3/min	Approx. 16 m^3/min	Approx. 19.5 m^3/min	Approx. 23.5 m^3/min
		For exhaust	Approx. 1.5 m^3/min	Approx. 2 m^3/min	Approx. 3 m^3/min	Approx. 3.5 m^3/min
Composition	Exterior material		Cold-rolled steel plate (chemical resistant powder coating)			
	Internal material		Stainless steel (SUS304), brushed finish			
	Working surface		Stainless steel (SUS304), brushed finish			
	Front door		Tempered glass			
	HEPA filter	Collection efficiency	Collection efficiency for 0.3um particles over 99.9%			
		Main filter	915×610×65/1 pc	610×610×65/2 pcs	760×610×65/2 pcs	915×610×62/2 pcs
		Air exhaust	305×200×50/1 pc	610×200×50/2 pcs	610×200×50/2 pcs	760×200×50/2 pcs
	Socket		220V 5A, 2 pcs			
	Fluorescent lamp		32W×2		40W×2	
	Sterilization lamp		15W×1	15W×2		15W×3
	Air blower		150W×1	120W×2		150W×2
	Level adjustment		Adjusted via legs (-18~+40mm)			
	Differential pressure display		Differential pressure gauges			
	Gas spray lamp (g type)		1 unit / ignition type (operational use only)			
Structure	Body shape		Integrated type			
	Air blower		Lower part set			
Overcurrent protector			Leakage circuit breaker, single-phase AC220V 20A			
Power supply			Single phase AC220V 15A			
Working space height			720mm			
External dimensions (mm)			W980×D770	W1300×D770	W1600×D770	W1910×D770
Total height (when door is open)			1820 (2080) mm			
Weight (kg)			180	220	250	290
Accessories			Leg adjustment fasteners (4 units)			
Usage environment conditions			Temperature 5℃~35℃, humidity below 85% RH			
Options			Wind speed controller: blowing wind speed display and variable wind speed device			

Clean Benches for Industry | Industrial Use, Vertical Airflow

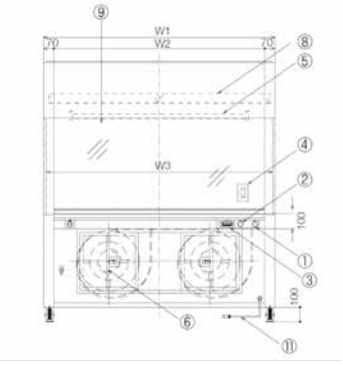
ADS

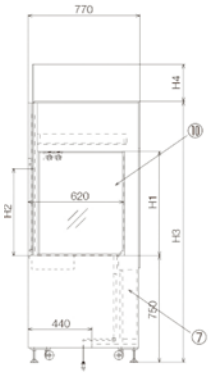
The airflow blows from the top of the workspace to the front, with a sliding glass door to adjust the opening.

Model selection guide



Dimension diagram (mm)





Model		ADS101		ADS131		ADS161		ADS191	
		M	H	M	H	M	H	M	H
Height (mm)	H1	720	875	720	875	720	875	720	875
	H2	600	755	600	755	600	755	600	755
	H3	1820	1975	1820	1975	1820	1975	1820	1975
	H4	260	415	260	415	260	415	260	415
Width (mm)	W1	980		1300		1600		1910	
	W2	840		1160		1460		1770	
	W3	940		1260		1560		1870	

Specifications

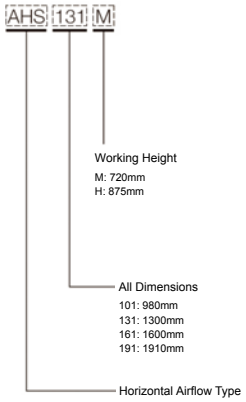
Type		ADS101S □		ADS131S □		ADS161S □		ADS191S □	
		M	H	M	H	M	H	M	H
Airflow direction		Vertical							
Performance	Cleanliness	Class 100							
	Blowing wind speed (m/sec)	Initial 0.40 or more, final approximately 0.20							
	Illuminance (lx)	1000 (center of working surface)							
	Working surface load capacity (kg)	50							
	Air volume	Approx. 13 m^3/min		Approx. 17 m^3/min		Approx. 22 m^3/min		Approx. 26 m^3/min	
Composition	Exterior material	Cold-rolled steel plate (chemical resistant powder coating)							
	Internal material	Stainless steel (SUS304), brushed finish							
	Working surface	Stainless steel (SUS304), brushed finish							
	Front door	Tempered glass							
	HEPA filter (mm)	915×610×65/1 pc		610×610×65/2 pcs		760×610×65/2 pcs		915×610×62/2 pcs	
		Collection efficiency for 0.3um particles over 99.9%							
	Coarse filter	400×400×15/1 pc		400×400×15/2 pcs					
	Socket	220V 5A, 2 pcs							
	Fluorescent lamp	32W×2				40W×2			
	Air blower	150W×1		120W×2				150W×2	
	Level adjustment	Adjusted via legs (-18~+40mm)							
	Differential pressure display	Differential pressure gauges							
Structure	Body shape	Integrated type							
	Air blower	Lower part set							
Overcurrent protector		Leakage circuit breaker, single-phase AC 220V 20A							
Power supply		Single phase AC220V 15A							
Working space height (mm)		720	875	720	875	720	875	720	875
External dimensions (mm)		W980×D770		W1300×D770		W1600×D770		W1910×D770	
Total height When door is open (mm)		1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)	1820 (2080)	1975 (2390)
Weight (kg)		180	200	220	240	250	270	290	320
Accessories		Leg adjustment fasteners (4 units)							
Usage environment conditions		Temperature 5℃~35℃, humidity below 85% RH							
Options		Wind speed controller: blowing wind speed display and variable wind speed device							

Clean Benches for Industry | Industrial Use, Horizontal Airflow

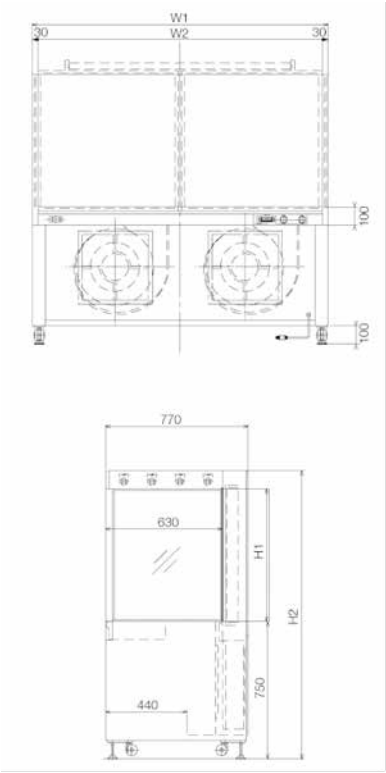
AHS

The airflow blows from the back of the workspace to the front, ensuring a spacious work area without a front door.

Model selection guide



Dimension diagram (mm)



Model		AHS101		AHS131		AHS161		AHS191	
		M	H	M	H	M	H	M	H
Height (mm)	H1	720	875	720	875	720	875	720	875
	H2	1570	1725	1570	1725	1570	1725	1570	1725
Width (mm)	W1	980		1300		1600		1910	
	W2	920		1240		1540		1850	

Specifications

Type		AHS101 □		AHS131 □		AHS161 □		AHS191 □	
		M	H	M	H	M	H	M	H
Airflow direction.		Horizontal							
Performance	Cleanliness	Class 100							
	Blowing wind speed (m/sec)	Initial 0.40 or more, final approximately 0.20							
	Illuminance (lx)	1000 (center of working surface)							
	Working surface load capacity (kg)	50							
	Air volume (m³/min)	Approx. 16	Approx. 20	Approx. 22	Approx. 27	Approx. 27	Approx. 33	Approx. 32	Approx. 39
Composition	Exterior material	Cold-rolled steel plate (chemical resistant powder coating)							
	Internal material	Stainless steel (SUS304), brushed finish							
	Working surface	Stainless steel (SUS304), brushed finish							
	HEPA filter (mm)	915×760 ×65 /1 pc	915×915 ×65/1 pc	610×760 ×65 /1 unit	610×915 ×65/1 pc	760×760 ×65/1 pc	760×915 ×65/1 pc	915×760 ×65 /1 pc	915×915 ×65/1 pc
		Collection efficiency for 0.3um particles over 99.9%							
	Coarse filter	400×400×15/1 pc		400×400×15/2 pcs					
	Socket	220V 5A, 2 pcs							
	Fluorescent lamp	32W×2				40W×2			
	Air blower	150W×1		120W×2				150W×2	
	Level adjustment	Adjusted via legs (-18~+40mm)							
	Differential pressure display	Differential pressure gauges							
Structure	Body shape	Integrated type							
	Air blower	Lower part set							
Overcurrent protector		Leakage circuit breaker, single-phase AC 220V 20A							
Power supply		Single phase AC220V 15A							
Working space height (mm)		720	875	720	875	720	875	720	875
External dimensions (mm)		W980×D770		W1300×D770		W1600×D770		W1910×D770	
Total height (mm)		1570	1725	1570	1725	1570	1725	1570	1725
Weight (kg)		170	190	210	230	240	260	280	310
Accessories		Leg adjustment fasteners (4 units)							
Usage environment conditions		Temperature 5℃~35℃, humidity below 85% RH							
Options		Wind speed controller: blowing wind speed display and variable wind speed device							

3

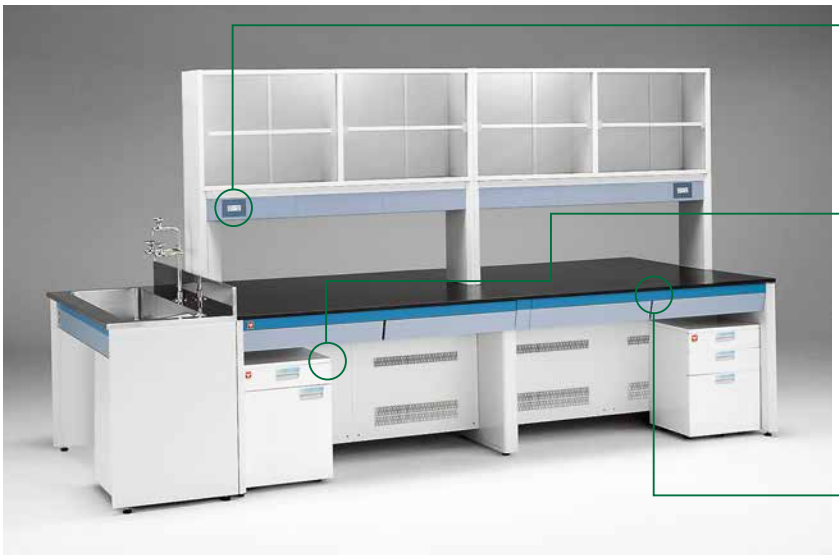
Laboratory Furniture

Contents

Laboratory Furniture

LC Series

Pursuing high safety and high performance in steel Laboratory Benches.



Additional electrical outlets available

Tabletop

Trespa Meteon 20mm thick (standard)

Earthquake countermeasure

Prevents drawers from popping out(standard configuration)

2 non-detachable power sockets (optional)

Combined panel for socket and LAN connection terminal (optional)

Gas nozzle (for vacuum/coolant, etc.) (optional)

Fluorescent light switch (optional)

Features

- To enhance corrosion resistance, a standard chemical-resistant powder coating (60μm film thickness) is applied.
- Perfectly integrated with machines, improving work efficiency and saving space.
- To accommodate heat-generating equipment, a steel body is used; ventilation openings are designed on the back and side to discharge heat.
- Equipped with a limiter to prevent drawers from popping out.
- Reagent racks can be added as per user requirements.

Fluorescent light components

Shelf/6mm glass fittings

Vacuum/Coolant gas nozzle (optional)

For ventilation use

Example of laboratory table and equipment combination

Specifications

Benchtop	Trespa Meteon 20mm thick, Epoxy resin board
Body	Steel plate, surface chemical-resistant powder coating with adjustable feet
Storage drawer	Steel plate, surface chemical-resistant powder coating, slide rail type, anti-pop-out limiter
Storage cabinet	Steel plate, surface chemical-resistant powder coating Drawer: slide rail type, anti-pop-out limiter Door: with limiter, resin caster with brake
Optional	Power socket

Model selection guide

LCA□-24 5 T

- Laboratory Table Series Name
- Shape — C: central table; F: side table
- 1: only laboratory table (no number); 2: with storage drawer; 3: with storage drawer and storage cabinet
- Width — 9: 900; 12: 1200; 15: 1500; 18: 1800; 24: 2400; 30: 3000; 36: 3600
- Depth — 2: 1200 (lab table); 5: 1500 (lab table); 7: 750 (side table)
- Tabletop T: Trespa Meteon

Laboratory Furniture
LC Series

LCA-305T

Island bench

LCA type

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Optional (power socket)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCA type	LCA-185T (-182T)	1,800	1,500 (1,200)	850	258kg	None
	LCA-245T (-242T)	2,400			302kg	
	LCA-305T (-302T)	3,000			345kg	
	LCA-365T (-362T)	3,600			360kg	
LCA2 type With storage drawer	LCA2-185T (-182T)	1,800	1,500 (1,200)	850	282kg	None
	LCA2-245T (-242T)	2,400			332kg	
	LCA2-305T (-302T)	3,000			381kg	
	LCA2-365T (-362T)	3,600			478kg	
LCA3 type With storage drawer and storage cabinet	LCA3-185T (-182T)	1,800	1,500 (1,200)	850	382kg	1C×2, 2C×2
	LCA3-245T (-242T)	2,400			431kg	1C×2, 2C×2
	LCA3-305T (-302T)	3,000			480kg	1C×2, 2C×2
	LCA3-365T (-362T)	3,600			577kg	1C×2, 2C×2

LCB3-305T

Island bench

LCB type (with reagent rack)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Reagent rack (steel plate, chemical-resistant coating)
- Optional (power socket)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCA type	LCB-185T (-182T)	1,800	1,500 (1,200)	850	312kg	None
	LCB-245T (-242T)	2,400			364kg	
	LCB-305T (-302T)	3,000			417kg	
	LCB-365T (-362T)	3,600			514kg	
LCA2 type With storage drawer	LCB2-185T (-182T)	1,800	1,500 (1,200)	850	337kg	None
	LCB2-245T (-242T)	2,400			394kg	
	LCB2-305T (-302T)	3,000			452kg	
	LCB2-365T (-362T)	3,600			559kg	
LCA3 type With storage drawer and storage cabinet	LCB3-185T (-182T)	1,800	1,500 (1,200)	850	436kg	1C×2, 2C×2
	LCB3-245T (-242T)	2,400			493kg	1C×2, 2C×2
	LCB3-305T (-302T)	3,000			552kg	1C×2, 2C×2
	LCB3-365T (-362T)	3,600			658kg	1C×2, 2C×2

Laboratory Furniture
LC Series

Island bench

LCC type (with reagent rack and shelf)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Reagent rack (steel plate, chemical-resistant coating)
- Shelf (steel plate, chemical-resistant coating)
- Optional (power socket)

LCC3-305T

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCC type	LCC-185T (-182T)	1,800	1,500 (1,200)	850	349kg	None
	LCC-245T (-242T)	2,400			424kg	
	LCC-305T (-302T)	3,000			488kg	
	LCC-365T (-362T)	3,600			595kg	
LCC2 type With storage drawer	LCC2-185T (-182T)	1,800	1,500 (1,200)	850	387kg	None
	LCC2-245T (-242T)	2,400			454kg	
	LCC2-305T (-302T)	3,000			523kg	
	LCC2-365T (-362T)	3,600			640kg	
LCC3 type With storage drawer and storage cabinet	LCC3-185T (-182T)	1,800	1,500 (1,200)	850	486kg	1C×2, 2C×2
	LCC3-245T (-242T)	2,400			554kg	1C×2, 2C×2
	LCC3-305T (-302T)	3,000			623kg	1C×2, 2C×2
	LCC3-365T (-362T)	3,600			740kg	1C×2, 2C×2

Island bench

LCD type (with sink)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Sink (stainless steel)
- Optional (power socket)

LCD3-365T

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCD type	LCD-245T (-242T)	2,400	1,500 (1,200)	850	327kg	None
	LCD-305T (-302T)	3,000			371kg	
	LCD-365T (-362T)	3,600			414kg	
LCD2 type With storage drawer	LCD2-245T (-242T)	2,400	1,500 (1,200)	850	351kg	None
	LCD2-305T (-302T)	3,000			401kg	
	LCD2-365T (-362T)	3,600			450kg	
LCD3 type With storage drawer and storage cabinet	LCD3-245T (-242T)	2,400	1,500 (1,200)	850	451kg	1C×2, 2C×2
	LCD3-305T (-302T)	3,000			500kg	1C×2, 2C×2
	LCD3-365T (-362T)	3,600			549kg	1C×2, 2C×2

Laboratory Furniture
LC Series

LCE3-365T

Island bench

LCE type (with sink and reagent rack)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Sink (stainless steel)
- Reagent rack (steel plate, chemical-resistant coating)
- Optional (power socket)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCE type	LCE-245T (-242T)	2,400	1,500 (1,200)	850	368kg	None
	LCE-305T (-302T)	3,000			433kg	
	LCE-365T (-362T)	3,600			486kg	
LCE2 type With storage drawer	LCE2-245T (-242T)	2,400	1,500 (1,200)	850	393kg	None
	LCE2-305T (-302T)	3,000			463kg	
	LCE2-365T (-362T)	3,600			522kg	
LCE3 type With storage drawer and storage cabinet	LCE3-245T (-242T)	2,400	1,500 (1,200)	850	492kg	1C×2, 2C×2
	LCE3-305T (-302T)	3,000			562kg	1C×2, 2C×2
	LCE3-365T (-362T)	3,600			621kg	1C×2, 2C×2

LCF3-365T

Island bench

LCF type (with sink, reagent rack, and shelf)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Sink (stainless steel)
- Reagent rack (steel plate, chemical-resistant coating)
- Shelf (steel plate, chemical-resistant coating)
- Optional (power socket)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LCF type	LCF-245T (-242T)	2,400	1,500 (1,200)	850	418kg	None
	LCF-305T (-302T)	3,000			493kg	
	LCF-365T (-362T)	3,600			557kg	
LCF2 type With storage drawer	LCF2-245T (-242T)	2,400	1,500 (1,200)	850	443kg	None
	LCF2-305T (-302T)	3,000			524kg	
	LCF2-365T (-362T)	3,600			592kg	
LCF3 type With storage drawer and storage cabinet	LCF3-245T (-242T)	2,400	1,500 (1,200)	850	542kg	1C×2, 2C×2
	LCF3-305T (-302T)	3,000			623kg	1C×2, 2C×2
	LCF3-365T (-362T)	3,600			692kg	1C×2, 2C×2

Laboratory Furniture
LF Series

Wall bench

LFA Type

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Optional (power socket)

LFA3-157T

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LFA type	LFA-97T	900	750	850	85kg	None
	LFA-127T	1,200			99kg	
	LFA-157T	1,500			113kg	
	LFA-187T	1,800			150kg	
	LFA-247T	2,400			178kg	
	LFA-307T	3,000			206kg	
LFA2 type With storage drawer	LFA2-97T	900	750	850	91kg	None
	LFA2-127T	1,200			106kg	
	LFA2-157T	1,500			122kg	
	LFA2-187T	1,800			162kg	
	LFA2-247T	2,400			193kg	
	LFA2-307T	3,000			224kg	
LFA3 type With storage drawer and storage cabinet	LFA3-97T	900	750	850	115kg	1C×1
	LFA3-127T	1,200			156kg	1C×1, 2C×1
	LFA3-157T	1,500			171kg	1C×1, 2C×1
	LFA3-187T	1,800			211kg	1C×1, 2C×1
	LFA3-247T	2,400			243kg	1C×1, 2C×1
	LFA3-307T	3,000			271kg	1C×1, 2C×1

Wall bench

LFB Type (with reagent rack)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Reagent rack (steel plate, chemical-resistant coating)
- Optional (power socket)

LFB3-307T

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LFB type	LFB-97T	900	750	850	112kg	None
	LFB-127T	1,200			130kg	
	LFB-157T	1,500			149kg	
	LFB-187T	1,800			191kg	
	LFB-247T	2,400			240kg	
	LFB-307T	3,000			278kg	
LFB2 type With storage drawer	LFB2-97T	900	750	850	118kg	None
	LFB2-127T	1,200			138kg	
	LFB2-157T	1,500			158kg	
	LFB2-187T	1,800			203kg	
	LFB2-247T	2,400			255kg	
	LFB2-307T	3,000			295kg	
LFB3 type With storage drawer and storage cabinet	LFB3-97T	900	750	850	142kg	1C×1
	LFB3-127T	1,200			188kg	1C×1, 2C×1
	LFB3-157T	1,500			208kg	1C×1, 2C×1
	LFB3-187T	1,800			253kg	1C×1, 2C×1
	LFB3-247T	2,400			305kg	1C×1, 2C×1
	LFB3-307T	3,000			345kg	1C×1, 2C×1

Laboratory Furniture
LF Series

LFC3-307T

Wall table

LFC Type (with reagent rack and shelf)

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)
- Reagent rack (steel plate, chemical-resistant coating)
- Shelf (steel plate, chemical-resistant coating)
- Optional (power socket)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LFC type	LFC-97T	900	750	850	137kg	None
	LFC-127T	1,200			161kg	
	LFC-157T	1,500			185kg	
	LFC-187T	1,800			241kg	
	LFC-247T	2,400			300kg	
	LFC-307T	3,000			348kg	
LFC2 type With storage drawer	LFC2-97T	900	750	850	143kg	None
	LFC2-127T	1,200			168kg	
	LFC2-157T	1,500			194kg	
	LFC2-187T	1,800			253kg	
	LFC2-247T	2,400			315kg	
	LFC2-307T	3,000			366kg	
LFC3 type With storage drawer and storage cabinet	LFC3-97T	900	750	850	167kg	1C×1
	LFC3-127T	1,200			218kg	1C×1, 2C×1
	LFC3-157T	1,500			243kg	1C×1, 2C×1
	LFC3-187T	1,800			303kg	1C×1, 2C×1
	LFC3-247T	2,400			365kg	1C×1, 2C×1
	LFC3-307T	3,000			416kg	1C×1, 2C×1

LFP-97T

Corner bench

LFP Type

Common specifications

- Tabletop (Trespa Meteon 20mm thick)
- Body (steel plate, chemical-resistant coating, with adjustable feet)

Type	Model	External dimensions (mm)			Weight (roughly)	Storage cabinet
		Width	Depth	Height		
LFP Type	LFP-97T	950	950	850	71kg	None

Shelves/Reagent Racks
LR/LU Series

Shelf

LRA·LRB·LRC·LRD Type


LRA-153 type (for central table)


LRB-154 type (for central table)


LRC-152 type (for side table)

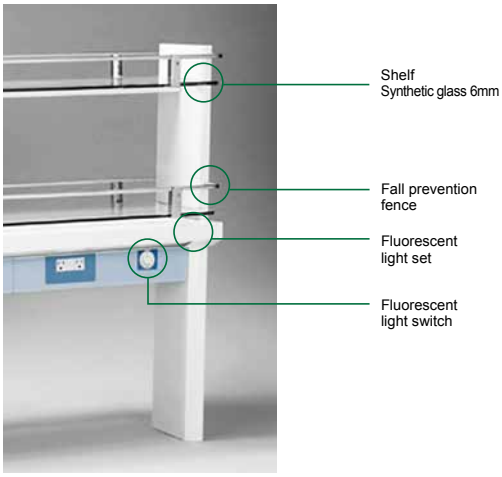

LRD-152 type (for side table)

Specifications

Shelf body	Steel plate, chemical-resistant powder coating
Glass window	Transparent glass 3mm thick (LRA, LRC type)
Glass shelf	Synthetic glass 6mm thick (LRB, LRD type)

Type	Model	External dimensions (mm)			Weight (roughly)	Note
		Width	Depth	Height		
LRA Type	LRA-93	900	300	600	25	For central table
	LRA-123	1,200			30	
	LRA-153	1,500			35	
LRB Type	LRB-94	900	440	880	64	With LUA/fluorescent light combination for central table
	LRB-124	1,200			80	
	LRB-154	1,500			92	
LRC Type	LRC-92	900	200	600	18	For side table
	LRC-122	1,200			22	
	LRC-152	1,500			25	
LRD Type	LRD-92	900	270	880	49	LUD/fluorescent light combination For side table
	LRD-122	1,200			62	
	LRD-152	1,500			73	

LRB/LRD standard configuration



Reagent rack

LUA·LUC·LUD Type


LUA-153 type (for central table)


LUC-152 type (for side table)


LUD-152 type (for side table)

Specifications

Reagent rack	Steel plate, chemical-resistant powder coating

Type	Model	External dimensions (mm)			Weight (roughly)	Note
		Width	Depth	Height		
LUA Type	LUA-93	900	300	480	27	For central table
	LUA-123	1,200			31	
	LUA-153	1,500			35	
LUC Type	LUC-92	900	200	480	21	For side table (right)
	LUC-122	1,200			25	
	LUC-152	1,500			29	
LUD Type	LUD-92	900			22	For side table (left)
	LUD-122	1,200			26	
	LUD-152	1,500			30	

Sink
LS Series

LSA-157

Sink

LSA Type

Specifications

- Body: steel plate, chemical-resistant coating, with adjustable feet
- Water bath and tabletop: stainless steel
- Optional: storage shelf, bracket, storage cabinet

Type

Series	Width \ depth	600mm	900mm	1,200mm	1,500mm	1,800mm
LSA	750mm					

Type	Model	External dimensions (mm)			Weight (roughly)
		Width	Depth	Height	
LSA Type	LSA-67	600	750	850/1,000	44kg
	LSA-97	900			57kg
	LSA-127	1,200			69kg
	LSA-157	1,500			81kg
	LSA-187	1,800			93kg

LSB-157

Sink

LSB Type

Specifications

- Body: steel plate, chemical-resistant coating, with adjustable feet
- Water bath and tabletop: stainless steel
- Optional: storage shelf, bracket

Type

Series	Width \ depth	600mm	900mm	1,200mm	1,500mm	1,800mm
LSB	750mm					

Type	Model	External dimensions (mm)			Weight (roughly)
		Width	Depth	Height	
LSB Type	LSB-127	1,200	750	850/1,000	74kg
	LSB-157	1,500			85kg
	LSB-187	1,800			98kg

LSC-157

Sink

LSC Type

Specifications

- Body: steel plate, chemical-resistant coating, with adjustable feet
- Water bath and tabletop: stainless steel
- Optional: storage shelf, bracket, storage cabinet

Type

Series	Width \ depth	600mm	900mm	1,200mm	1,500mm	1,800mm
LSC	750mm					

Type	Model	External dimensions (mm)			Weight (roughly)
		Width	Depth	Height	
LSC Type	LSC-127	1,200	750	850/1,000	67kg
	LSC-157	1,500			79kg
	LSC-187	1,800			91kg

Sink
LS Series

Sink

LSD Type

LSD-157

Specifications

- Body: steel plate, chemical-resistant coating, with adjustable feet
- Water bath and tabletop: stainless steel
- Optional: storage shelf, bracket, storage cabinet

Type

Series	Width \ depth	600mm	900mm	1,200mm	1,500mm	1,800mm
LSD	600mm					

Type	Model	External dimensions (mm)			Weight (roughly)
		Width	Depth	Height	
LSD Type	LSD-126	1,200	600	850/1,000	62kg
	LSD-156	1,500			74kg

Sink

LSE Type

LSE-157

Specifications

- Body: steel plate, chemical-resistant coating, with adjustable feet
- Sink: stainless steel
- Tabletop: Trespa Meteon
- Optional: storage shelf, bracket, storage cabinet

Type

Series	Width \ depth	600mm	900mm	1,200mm	1,500mm	1,800mm
LSE	750m					

Type	Model	External dimensions (mm)			Weight (roughly)
		Width	Depth	Height	
LSE Type	LSE-127T	1,200	750	850/1,000	70kg
	LSE-157T	1,500			83kg
	LSE-187T	1,800			95kg

Table for Balance, Storage Cabinet
LB/SU Series

LBA-126

Table for balance

LBA Type

Common specifications

Model	Width	Depth	Height	Weight (roughly)
LBA-96	900mm	600mm	750mm	116kg
LBA-126	1,200mm			152kg
LBA-186	1,800mm			225kg

Tabletop: artificial stone 50mm thick
Body: steel plate, chemical-resistant coating, with adjustable feet

LBB-96

Table for balance

LBB Type

Common specifications

Model	Width	Depth	Height	Weight (roughly)
LBB-96	900mm	600mm	750mm	109kg
LBB-126	1,200mm			136kg
LBB-186	1,800mm			218kg

Tabletop: artificial stone 50mm thick
Body: steel plate, chemical-resistant coating, with adjustable feet

LBC-97

Anti-vibration table for balance

LBC Type (for micro quantities)

Common specifications

Model	Width	Depth	Height	Weight (roughly)
LBC-97	900mm	750mm	750mm	148kg
LBC-127	1,200mm			174kg
LBC-187	1,800mm			296kg

Tabletop: Melamine board and coated cast iron plate
Anti-vibration table: Anti-vibration rubber, 36mm thick cast iron
Body: steel plate, chemical-resistant coating, with adjustable feet

Storage cabinet

SU Type

SU-1C

SU-2C

SU-3C

SU-4C

SU-5C

Model	External dimensions (mm)			Weight (roughly)
	W	D	H	
SU-1C	450	400	600	26kg
SU-2C				24kg
SU-3C				24kg
SU-4C				19kg
SU-5C				19kg

Cabinets, Storages
LL Series

LLA-94

Chemical Utensil Cabinet

LLA Type

Common specifications

Exterior shelf of the main body	Steel plate with chemical-resistant powder coating
Glass cabinet door	Frame: Steel plate with chemical-resistant powder coating Glass: Transparent glass 3mm
Lower cabinet door	Steel plate with chemical-resistant powder coating, with limiter

Model	Width	Depth	Height	Weight (roughly)
LLA-94	900mm	450mm	1,800mm	105kg
LLA-124	1,200mm			131kg
LLA-154	1,500mm			158kg
LLA-184	1,800mm			210kg

LLB-154

Chemical Utensil Cabinet

LLB Type

Common specifications

Exterior shelf of the main body	Steel plate with chemical-resistant powder coating
Glass cabinet door	Frame: Steel plate with chemical-resistant powder coating Glass: Transparent glass 3mm
Lower cabinet door	Steel plate with chemical-resistant powder coating, with limiter
Drawer	Steel plate with chemical-resistant powder coating, with slide rail, with limiter

Model	Width	Depth	Height	Weight (roughly)
LLB-94	900mm	450mm	1,800mm	114kg
LLB-124	1,200mm			140kg
LLB-154	1,500mm			161kg
LLB-184	1,800mm			228kg

Hazardous Chemical Explosion-proof Cabinet

LN-012/022/045

Features

- Different exterior colors for storing various hazardous chemicals: Yellow - flammable liquids, Red - combustible liquids, Blue - corrosive liquids, Gray-white - narcotics/poisons.
- Equipped with clear labels and reflective warning stickers for easy identification of hazardous materials, multi-language for easy recognition.
- Equipped with a static grounding port to prevent accidents caused by static sparks.
- 50mm high leak-proof tray to prevent hazardous chemical liquids from spilling out of the cabinet and causing injury.
- Double-lock design for extra security, key lock + external lock, upper/middle/lower three-point linkage locking structure enhances cabinet security.
- Three-point linkage lock, upper-middle-lower three-point linkage solid lock increases cabinet security.
- Air vents on both sides, adjustable airflow, effectively reduce gas concentration.

Common specifications

Model	LN-012	LN-022	LN-045
Internal dimensions (W×D×H mm)	510×380×740	510×380×1500	1010×380×1500
External dimensions (W×D×H mm)	590×460×890	590×460×1650	1100×460×1650
Weight (kg)	25	51	87
Shelf layers	3	3	3
Others	Number of shelves can be increased		

Intelligent Reagent Cabinet

LQ-022/045

Features

- Designed based on RFID technology (Radio Frequency Identification), effectively solving the drawbacks of traditional hazardous chemical management, achieving digitized, intelligent, and efficient hazardous chemical management.
- Remote authorization application, automatic warning alarm, real-time operation recording, achieving 24-h management.
- Meet regulatory authorities' “five double” management requirements, supports remote authorization for door opening.
- Automatically records reagent usage information via RFID technology, automatically logs reagent in-and-out electronic records.
- Intelligent alarm for forbidden storage and abnormal behavior.
- Automatically generates various logs, supports log export and printing in EXCEL.
- Video monitoring for automatic door opening and closing, records door opening behavior, traceable to individuals.
- Exterior color options: red, yellow.

Common specifications

Model	LQ-022	LQ-045
Internal dimensions (W×D×H mm)	510×380×1500	1010×380×1500
External dimensions (W×D×H mm)	590×460×1650	1100×460×1650
Weight (kg)	51	87
Shelf layers	3	3
Others	Number of shelves can be increased, standalone version and network version available	