Flores Valles

International Division

laboratory furniture

fume hoods

ADaptA SYSTEM

With the objetive of remaining integrated in a continually changing scientific environment, we have created a Laboratory Furniture system capable of responding to any end-user present or future need.

With its design, materials and functionality our New **ADAPTA® System:**

ADAPTS to the peculiarities of each installation because each project is different and unique for us.

ADAPTS to the most demanding Quality Standards.

ADAPTS to every possibility of funding, offering appropriate solutions to each economy.

ADAPTS to the environment, using materials and production processes committed to it.

ADAPTS to the latest aesthetics trends, creating comfortable work environments.

ADAPTS to the highest standards of safety in a laboratory by ensuring, at all times, the health of the end-user.

ADAPTS to the future through systems that allow easy Furniture or Services changes.

Finally, it ADAPTS to any end-user need because your satisfaction is our commitment, obligation and responsibility.

Come to know, through this catalogue, **Flores Valles New Laboratory Furniture ADAPTA System.**

Flores Valles
International Division

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If you do not find what you want do not hesitat to contact us.

export@floresvalles.com

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Safety, sturdiness and flexibility are just some of the concepts whose simplicity and balance define our new furniture ADAPTA System.

The most advanced advanced steel treatments are now available to the scientific community, creating a perfect harmony between design and technology.


TRUMATIC 500


Evaluación expectativas

FLORES VALLES

We put at your disposal our full staff of more than 200 qualified **professionals and specialists in technical installations for laboratories.**

INTEGRATED SERVICE
Our organization is structured to install turnkey projects which are tailor made to the needs of each customer. Our organization carries the design, project, manufacturing, installation and after-sale service.

RESEARCH AND DEVELOPMENT
Quality in design, manufacturing, installation and service is our commitment. We care for every little detail in order to attain the functionality and reliability which makes of us the leading reference in the market.

All this would not be possible without the investment we have been making for over 50 years in our R&D Department. In charge of designing all our products with the right combination of aesthetics and technical innovations, the department has always kept the strictest compliance to national and international standards in terms of quality and safety.

ENGINEERING AND PROJECTS
To give expression to a project's optimum solution that satisfies all the needs of its users is the challenge of our Engineering and Projects Department.

They also draft the engineering plans for any construction work to be done, as well as the services: the water, gas, electricity, etc., all in strict compliance with local regulations in order to obtain the necessary licenses from the corresponding official bodies.

Flores Valles provides you with a complete solution for the flawless evolution of the project, which includes:

- Furniture Distribution
- Utilities Engineering
- Extractor Engineering
- Climate Control Engineering

PROGRAMMING AND MANUFACTURING
We conduct the entire production process according to the ISO 9001 quality assurance system.

The use of the most advanced machinery, along with the highest quality raw materials, constitutes the essence of our manufacturing process.

AFTER-SALES SERVICE
Flores Valles, with an ongoing dedication towards improving your facility's post-sale and maintenance services, counts on a high skilled team of professionals and specialists to guarantee the proper performance of all our equipment and furniture, as well as leading Preventive Maintenance Programs for fume hoods.

Headquarters
Madrid

Branch Offices
Aragón
Castilla y León
Extremadura
Galicia
Levante

International Distributors
Argentina
Bangladesh
Belgium
Brazil
Bulgaria
Cyprus
Costa Rica
Cuba
Czech Republic
Egypt
France
Greece
Hong Kong
India
Ireland
Kuwait
Lithuania
Libya
Malta
Mexico
Mongolia
Morocco
Omán
Perú
Poland
Qatar
Romania
Russia
Saudi Arabia
Singapore
Slovenia
Sri Lanka
United Arab Emirates
Ukraine
United Kingdom
United States

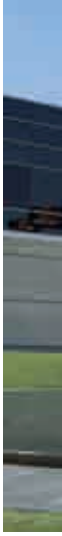
SALES NETWORK

In addition to offering services to meet our customers' expectations, we aim to maintain strong ties with them. This is why we have a large sales network, which is currently in a process of expansion as our company grows.

We currently export our systems to over 35 countries, competing in several world-class markets.

National Distributors

Branch offices / International Distributors

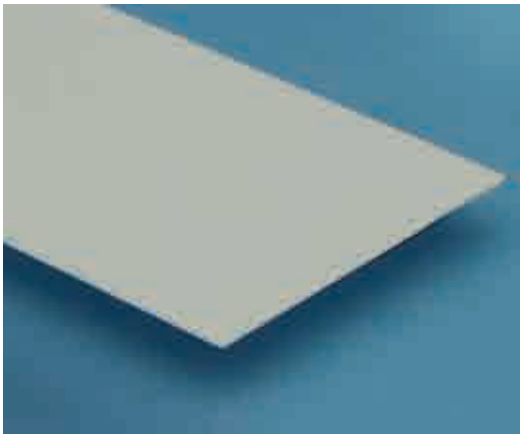


EXPERIENCE

Over the last 50 years we have had the opportunity to work with thousands of laboratories all over the world. Each one has provided us new experiences and skills, the same ones which we now put at your service, whatever your laboratory needs or specialization may be.

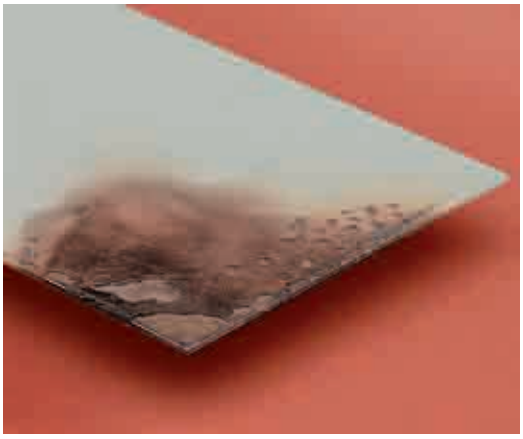
Some of the customers with whom we have had the pleasure of working are listed in following:

- Parc Cientific (Barcelona)
- Parc de la Recerca Biomédica (Barcelona)
- Centro Nacional de Investigaciones Oncológicas (Madrid)
- Centro Nacional de Investigaciones Cardiovasculares (Madrid)
- Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (Madrid)
- Centro de Investigación y Desarrollo (Barcelona)
- Centro de Investigación Príncipe Felipe (Valencia)
- Centro de Conservación y Mejora Agrodiversidad (Valencia)
- Centro de Biomateriales (Valencia)
- Centro de Desarrollo Farmacéutico (Granada)
- Centro de Investigación Médica Aplicada (Navarra)
- Centro de Investigación. Transferencia e Innovación (Orense)
- Centro Tecnológico de la Carne (Orense)
- Centro del Acero y Materiales Metálicos (Asturias)
- Centro Nacional de Investigación de la Evolución Humana (Burgos)
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (Madrid)
- Instituto Geológico y Minero de España (Madrid)
- Instituto Catalán de Oncología (Barcelona)
- Instituto de Ingeniería de Alimentos para el Desarrollo (Valencia)
- Instituto Agroforestal Mediterráneo (Valencia)
- Instituto de Ingeniería Energética (Valencia)
- Instituto de Neurociencias (Alicante)
- Instituto de Bioingeniería (Alicante)
- Instituto de Ciencias de la Materia (Zaragoza)
- Instituto de Ciencia de Materiales de Aragón (Zaragoza)
- Institutos de I+D (Zaragoza)
- Instituto Universitario de Oftalmología (Valladolid)
- Instituto de Neurociencias de Castilla y León (Salamanca)
- Instituto Mediterráneo de Estudios Avanzados (Mallorca)
- Instituto de Ciencias de la Vid y el Vino (La Rioja)
- Agencia Española de Seguridad Alimentaria y Nutrición/ Centro Nacional de Alimentación (Madrid)
- Laboratorios Agrarios Edificio Pazo de Quián (La Coruña)
- Universidad Complutense (Madrid)
- Universidad de Alcalá de Henares (Madrid)
- Universidad Rey Juan Carlos (Madrid)
- Universidad de Barcelona
- Universidad Politécnica de Cataluña (Barcelona)
- Universidad Politécnica de Valencia
- Universidad Miguel Hernández (Alicante)
- Universidad de Alicante
- Universidad Pablo Olavide (Seviilla)
- Universidad de Extremadura (Badajoz)
- Universidad de Lérida
- Universidad de Zaragoza
- Universidad de Jaén
- Universidad de Granada
- Universidad de Cádiz
- Universidad de Almería
- Universidad de Córdoba
- Universidad de Albacete
- Hospital Universitario Doctor Negrín (Las Palmas)
- Hospital Materno Insular (Las Palmas)
- Hospital Universitario Miguel Servet (Zaragoza)
- Centre D'Investigació en Nanociència I Nanotecnología (Barcelona)
- Hospital Infanta Cristina (Badajoz)
- Hospital Son Dureta - Palma de Mallorca
- Centro Tecnológico Repsol YPF (Madrid)
- Canal de Isabel II - Lab. de la Calidad de las Aguas (Madrid)
- Universitat Jaume I - Ed. Investigación (Castellón)
- Sanofi-Aventis (Madrid)
- Merck Sharp & Dohme (Madrid)
- Holmen Paper (Madrid)
- Glaxo SmithKline (Madrid)
- Italfármaco (Madrid)
- Metro de Madrid (Madrid)
- Cemex España (Madrid)
- Henkel Ibérica (Barcelona)
- Sos Cuetara (Córdoba)
- Glaxo Welcome (Burgos)
- Saint Gobain (Asturias)
- Portland Valderribas (Sevilla)
- BP Oil (Castellón)
- Danone (Madrid, Tenerife, Sevilla, Valencia, Barcelona)
- King Abdullah University of Science & Technology- KAUST (Saudi Arabia)
- Kuwait Institute of Scientific Research KISR - (Kuwait)
- Government Labs (Hong Kong)
- Caritas Hospital (Hong Kong)
- High School (Hong Kong)
- UAE University (UAE)
- Bodycote (Emiratos Árabes)
- Illinois University (EE.UU.)
- Sebha University (Libya)
- Hospital Makokou (Gabón)
- Michelin (Rumania)
- Ministry of Electricity & Water (Oman)
- Ministry of Heath & Population (Egipto)
- Neutromics (Mongolia)
- Gdansk University (Poland)
- Antidoping (Qatar)
- Sidra (Qatar)
- King Saud University (Saudi Arabia)



SAFETY

Much of the work done in laboratories contains a high degree of risk to the user.
Handling toxic and flammable substances obliges everyone implicated in laboratory design to uphold safety as a basic working principle.
This is why in addition to complying with and guaranteeing all safety regulations it is necessary that every element forming part of the laboratory is designed and built in such a way that the risk of fire and contamination is minimized.
For our R&D team, laboratory safety is a priority reflected in our choice of raw materials and the design of our equipment:



STEEL: THE PERFECT MATERIAL

With the exception of work surfaces, all our fixtures are made of metal.
The main material is cold-laminated DC.01 steel, in accordance with Standard 10152, plus an organic coating of epoxy-polyester resin.
In addition to its magnificent performance in damp and wet conditions thanks to modern painting procedures, this is undoubtedly the safest material to be used when manufacturing lab furniture.

NON-COMBUSTIBLE
Unlike other wood-based materials, steel is non-combustible, so it does not propagate fire neither it spreads any toxic gases.

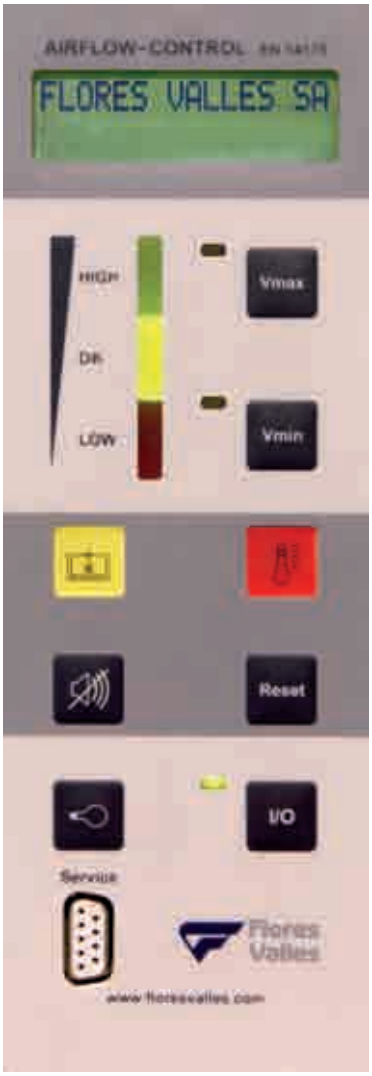
NON-POROUS
Steel does not absorb any toxic substances nor liquids or dampness of any type.

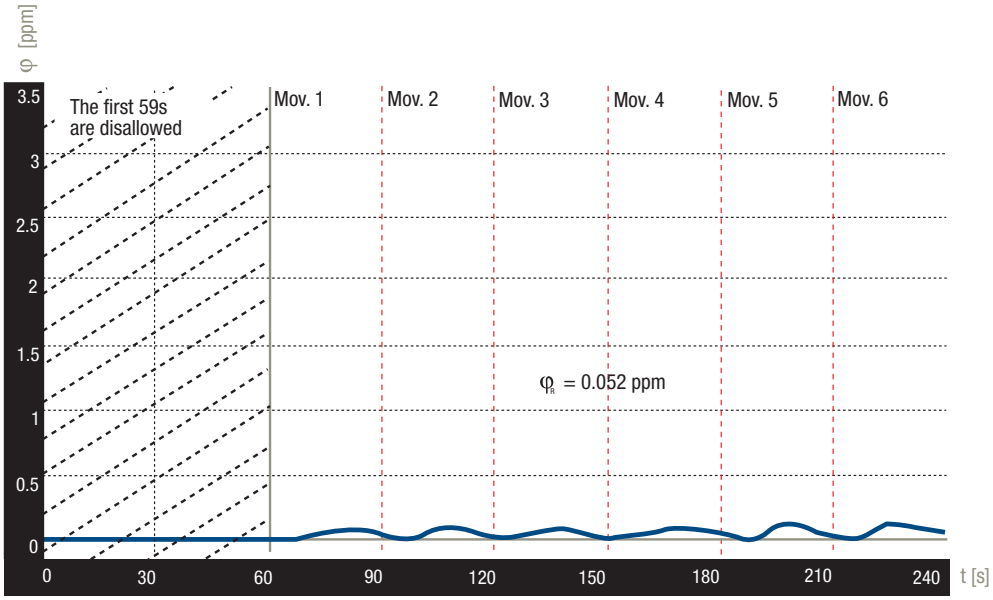
RECYCLABLE
All the components of the furniture are completely recyclable and reusable.

A HEALTHY ENVIRONMENT

A fume hood is a fundamental element in laboratory safety. The vast majority of hazardous tasks are done inside them, so they must guarantee a healthy environment with a proper containment system, as well as performing optimally in the event of an explosion or splashing.

Doted with the most advanced control systems, these cupboards guarantee flawless containment with minimal air consumption.
This results in a healthy atmosphere for the user, at the same time as it is respectful with the environment. The entire fume hood construction, both inside and out, is made of steel to guarantee the safety of the user in the event of an explosion or fire.





CONTAINMENT ROBUSTNESS in a fume hood VA150810 of 1.500 mm. width.
Sash opening height 500 mm. and airflow speed 0,4 m/s.

EVERYTHING ACCORDING TO NORM

In all our design and installations we scrupulously take into account all the standards requested especially the ones related to end user safety.

1. QUALITY, ENVIRONMENT, AND PREVENTION

CODE	DESCRIPTION
UNE EN ISO 9001:2000	Quality management systems.
UNE EN ISO 9004:2000	Quality management systems. Guidelines to improve performance.
UNE EN ISO 19011:2002	Guidelines for auditing quality and/or environmental management systems.
UNE EN ISO 14001:2004	Environmental management systems. Guidelines with indications of use.
LAW 31/1995	Law on risk prevention.
ATEX Guideline 94/9/CE	Explosive atmospheres. Safety systems and equipment.
NTP 57	Laboratory rooms. Ventilation control for highly toxic products in laboratories.
NTP 135	Laboratory safety. Safety questionnaire.
NTP 369	Potentially explosive atmospheres: electrical installations.
NTP 370	Potentially explosive atmospheres: Classification of Class I displacements.
NTP 433	Risk prevention in the laboratory. Installations, laboratory material and equipment.
NTP 551	Risk prevention in the laboratory. The importance of design.
NTP 646	Laboratory safety. Selection and location of cabinets.
NTP 677	Laboratory safety. Laboratory gas cabinets. Use and maintenance.

2. LABORATORY FURNITURE AND EQUIPMENT

CODE	DESCRIPTION
UNE EN 13150	Laboratory tables. Sizes, safety requirements and testing methods.
UNE EN 13792	Color coding valves and faucets used in laboratories.
UNE EN 14056	Laboratory furniture. Recommendation on design and installation.
UNE EN 14175-1	Fume Hood. Part 1: Vocabulary.
UNE EN 14175-2	Fume Hood. Part 2: Safety and operation requirements.
UNE EN 14175-3	Fume Hood. Part 3: Typical test methods.
UNE EN 14175-4	Fume Hood. Part 4: In situ test methods.
UNE EN 14470-1	Fire prevention safety cabinets. Part 1: Safety cabinets for inflammable liquids.
UNE EN 14470-2	Fire prevention safety cabinets. Part 2: Safety cabinets for compressed gas tanks.
UNE EN 14727	Laboratory furniture. Container furniture for laboratories. Requirements and testing methods.
UNE EN 15154-1	Safety showers. Part 1: Full-body showers connected to the water system used in the laboratory.
UNE EN 15154-2	Safety showers. Part 1: Full-body showers connected to the water system used in the laboratory.
UNE EN 61010	Electrical equipment safety requirements for measuring, control and use in laboratories.
DIN 1946, parte 7	Workplace ventilation techniques. Ventilation equipment for laboratory premises.
DIN 12000	Safety symbols and abbreviations.
DIN 12912	Laboratory equipment. Ceramic tiles for laboratory tables.
DIN 12915	Laboratory equipment. Drip cups in ceramic materials.
DIN 12916	Laboratory equipment. Large-sized laboratory work surfaces.
DIN 12918-1	Laboratory equipment. Valves for laboratories. Part 1: Water faucets.
DIN 12818-2	Laboratory equipment. Valves for laboratories. Part 2: Combustion gas inlets.
DIN 12920	Different colors for faucet handles in laboratories, according to fluid type.
DIN 12898	Faucet swanneck in laboratories.
DIN 12919	Junction sizes and fleuron diameters, height of faucet columns in laboratories.
DIN 3537	Gas faucet types in laboratories, manufacturing and testing regulations.
DIN 25466	Exhaust hoods for radioactive materials.

3. VARIOUS: SERVICES AND STORAGE

CODE	DESCRIPTION
RD 1244/79	Regulations for pressurized apparatus.
RD 1853/93	Gas installations for premises intended for domestic, collective or commercial use.
RD 379/2001	Chemical product storage regulations.
ITC MIE AP-07	Tanks and bottle of compressed, liquefied or dissolved gas under pressure.
RD 842/2002	Low-woltage electro-technical regulations.
RD 1027/2007	Regulations for building heating installations.
UNE EN 12056-1	Gravity drainage systems inside buildings. Part 1: General and operation requirements.
UNE EN 12056-2	Gravity drainage systems inside buildings. Part 2: Channeling residual water from sanitary furniture, design and calculations.
UNE EN 12056-4	Gravity drainage systems inside buildings. Part 4: Residual water from raised storeys. Design and calculations.
UNE EN 61000-6-2	Electromagnetic compatibility (CEM). Part 6-2: General normative. Immunity in industrial areas.
UNE EN 61000-6-4	Electromagnetic compatibility (CEM). Part 6: General normative. Section 4: Emission regulations in industrial areas.

LABORATORY FURNITURE

SERVICE GALLERIES

BENCHES

STORAGE

SERVICE GALLERIES

- 400 mm. SERVICE PANELS
- 200 mm. SERVICE PANELS
- SERVICE COLUMN
- BENCH MOUNTED SERVICES
- SERVICE WALL
- LOW SERVICE WALL
- SHELVING
- OVERHEAD UTILITY CARRIER

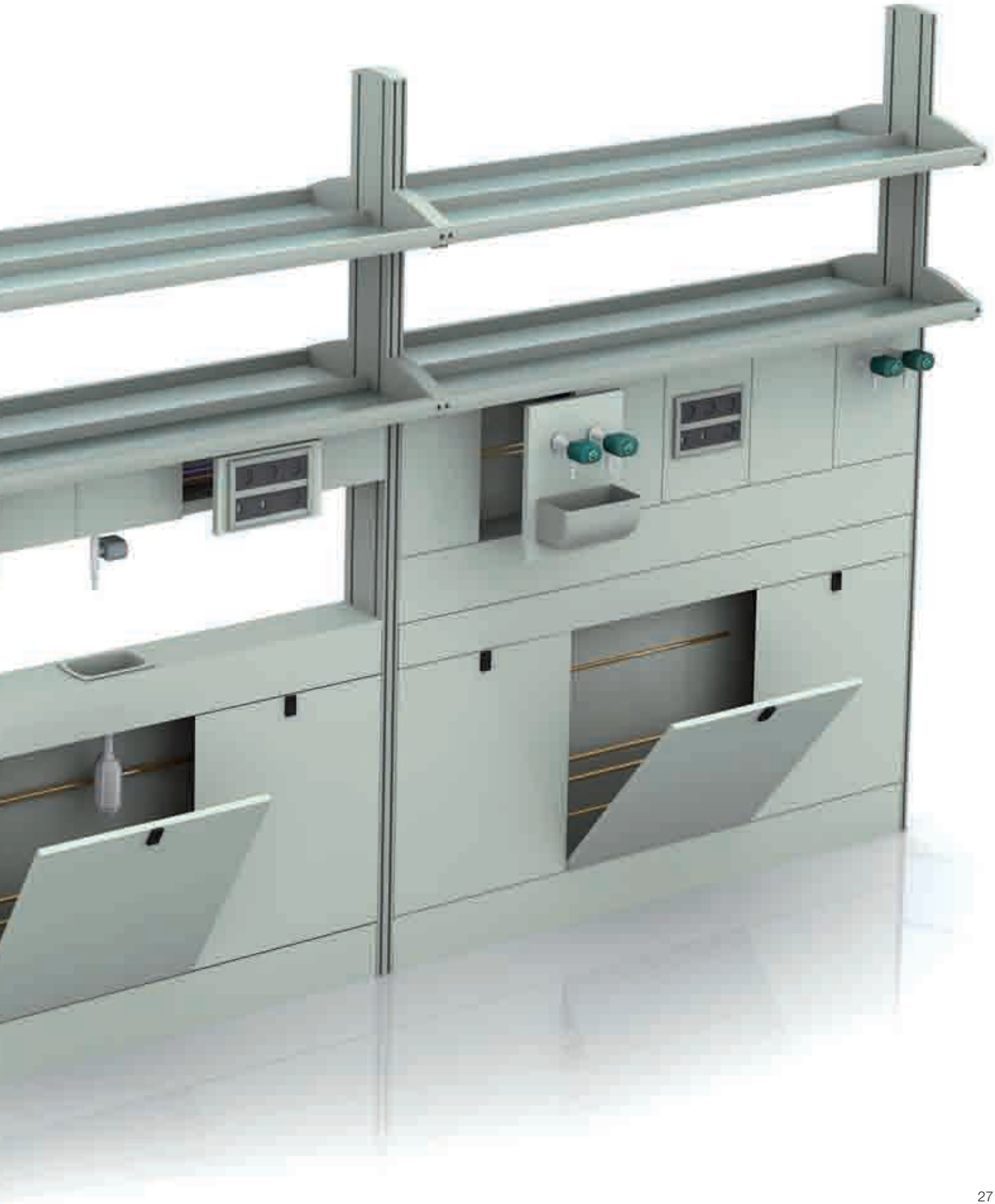
SERVICE GALLERIES

A well-planned laboratory must have a functional and flexible service system which can adapt to future distribution changes.

This must be done by using elements fitted into the system itself, indeed any service access point, whether from the ceiling or the floor.

It also must provide many different solutions in order to adapt the service point to the needs of the operator. These solutions must be combinable in order to make every laboratory a versatile workspace.

In order to comply with what has been previously mentioned, we have developed a Service System based on the use of **interchangeable panels** that allows for any type of change in the distribution of taps and electrical components. It can thus adapt to any new requirements that may arise without having to make costly and bothersome changes in the facility. This is our way of staying one step ahead of the future.

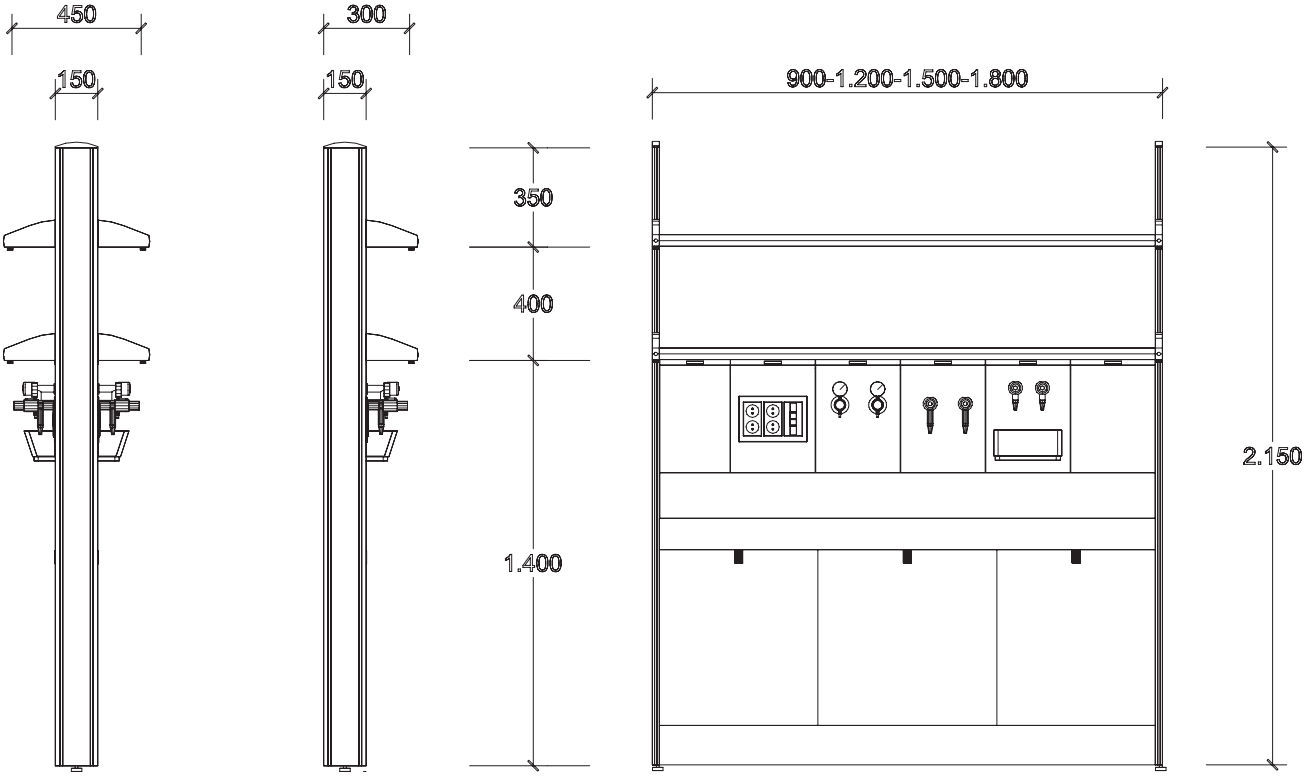


400 mm.
SERVICE PANELS

The service points are located on interchangeable front panels 400 mm. high.

On island benches, the panels are well-suited for dividing workspaces which need to be isolated.

On wall benches, they form a backsplash which is also used to protect the wall from splashes and spills.

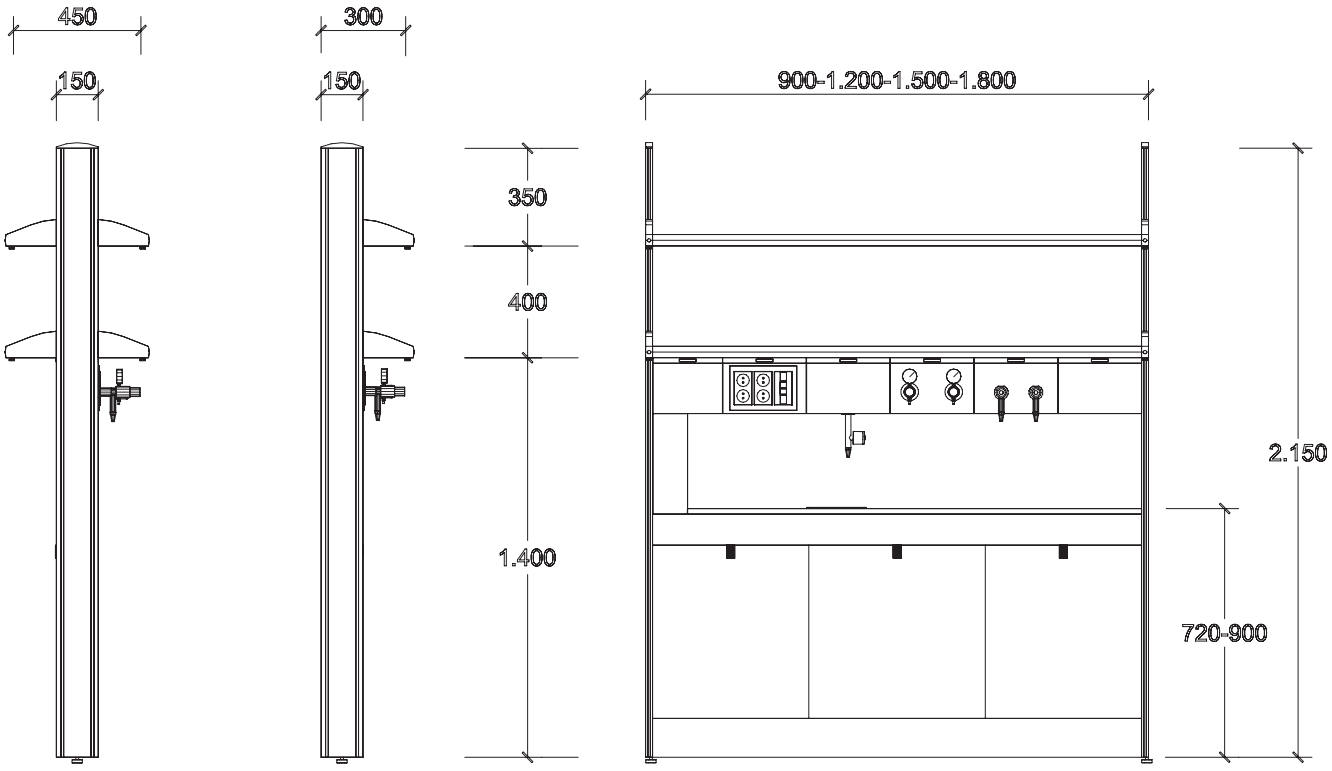


200 mm.
SERVICE PANELS

Following to the concept of horizontal service distribution, these may be required in diaphanous workspaces which encourage communication between both sides of the island benches.

For this, the system offers the option of having 200-mm high interchangeable panels, with the services set above the work surface.

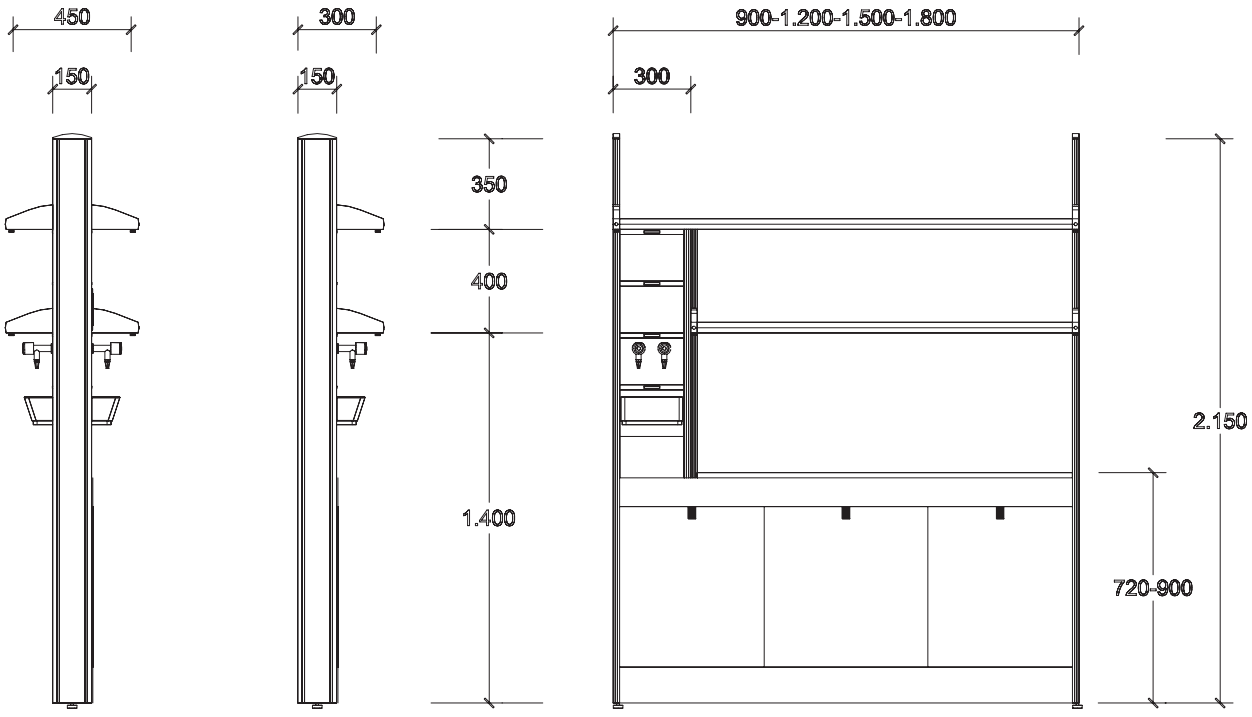
This option is also applicable to wall benches.



SERVICE COLUMN

When it is unadvisable to have a horizontal service layout, this system allows for the possibility of arranging them in vertical columns.

This arrangement becomes quite functional when using large-sized equipment which needs plenty of space.

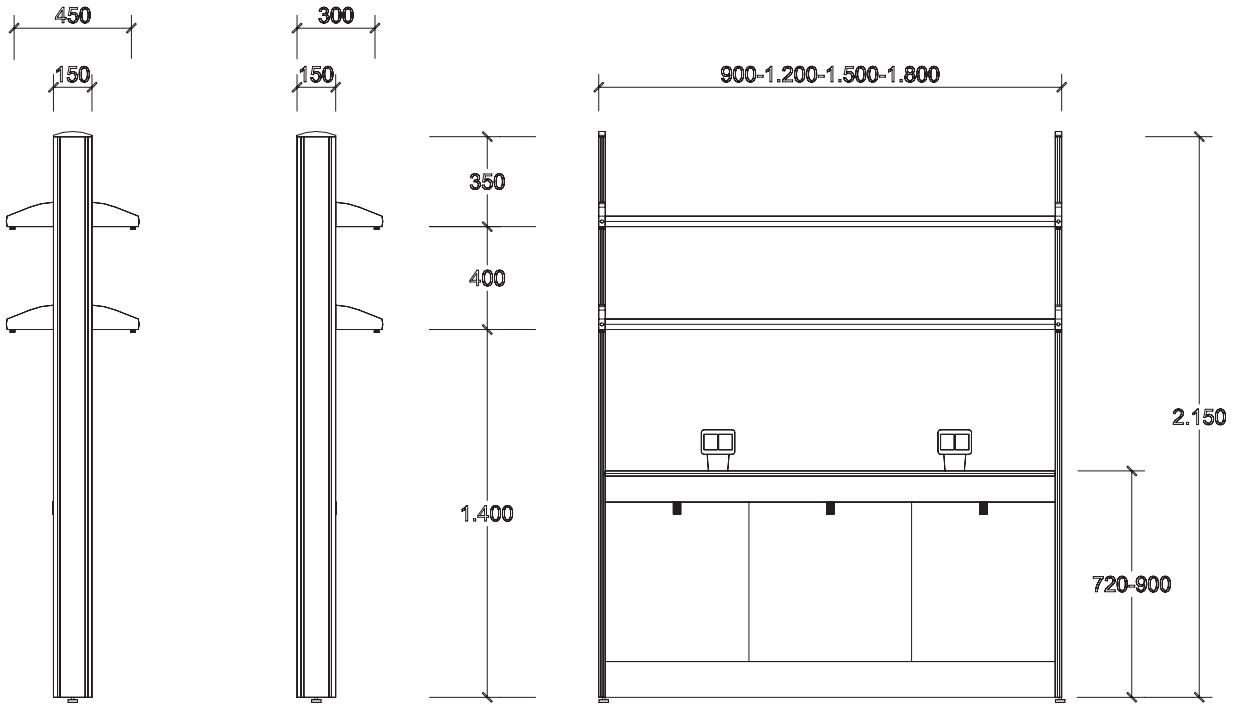


BENCHMOUNTED SERVICES

On occasions, simplicity is the best solution.

The simplest option is our system which allows for the location of electrical services on the work surface itself.

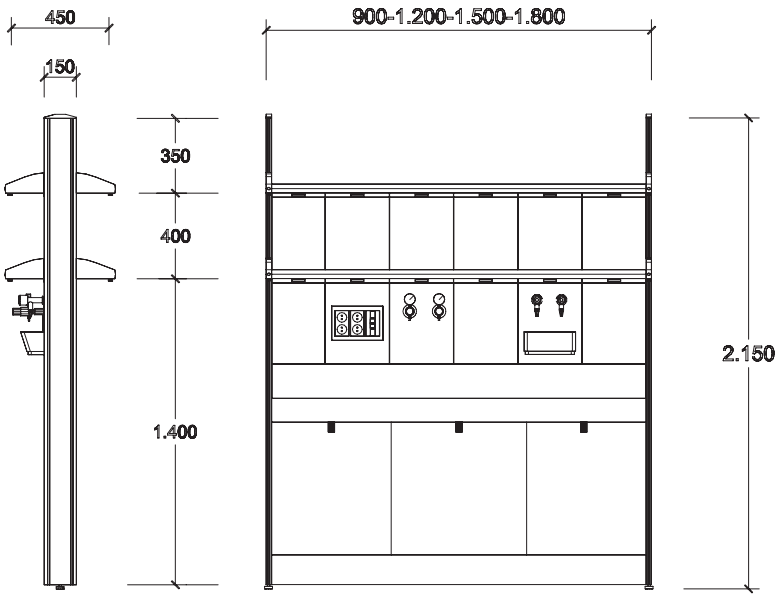
This solution can be combined with any of the previously mentioned.

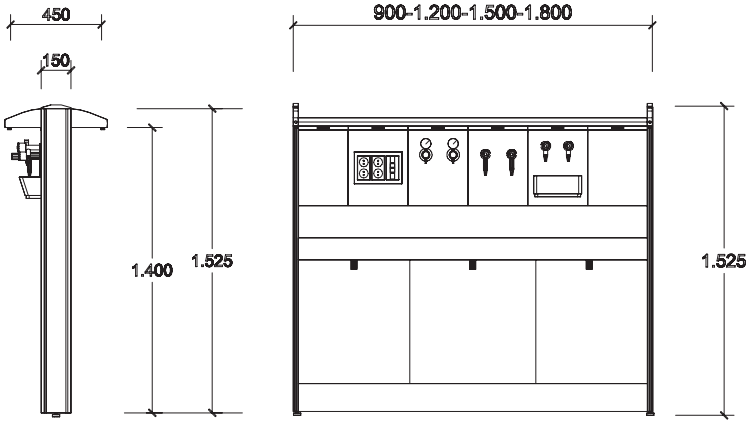


SERVICE WALL

It is becoming more and more frequent to find laboratories needing a service unit installed to which can be added movable tables or simply connected up to equipment (refrigeration equipments, centrifuges, etc) at any given moment.

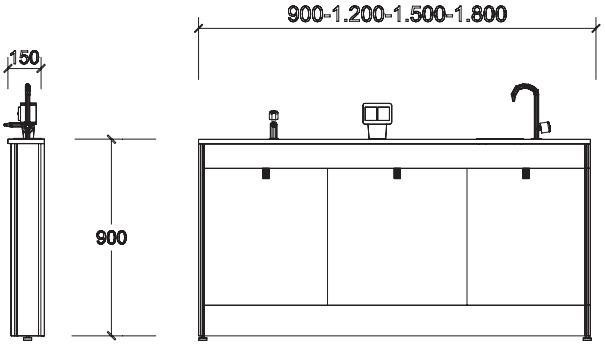
To cover this need we have planned for service walls set at three different heights, which can be installed both in an island or wall position.





LOW SERVICE WALL

SERVICE WALL BENCH LEVEL



SHELVING

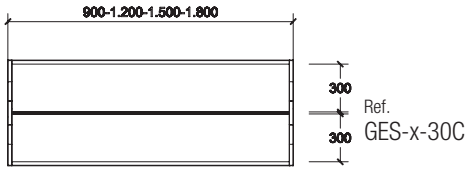
All service systems are complemented by storage shelves.

These are anchored to the vertical profiles with aluminium injection brackets coated in epoxy-polyester resin with a metallic finish.

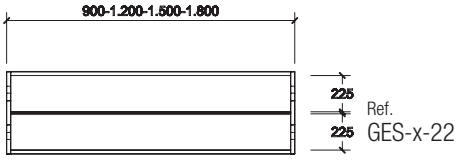
Built according to Standard EN 13150, these shelves are easily height-adjustable without need to have them dismantled.

They are protected by a front lip of 6063-quality extruded aluminum with a T5 heat-treatment and coated in epoxy-polyester resin. In compliance with regulations, they also have a 30 mm. high back lip to prevent accidents.

ISLAND



Ref.
GES-x-30C



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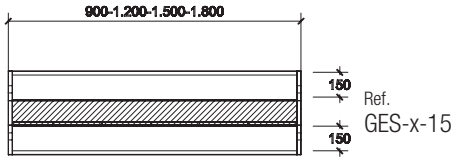

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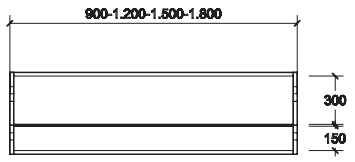
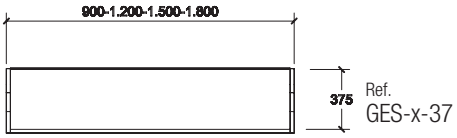


WALL



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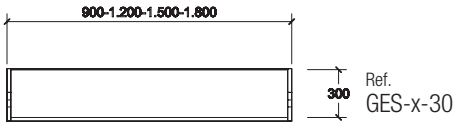
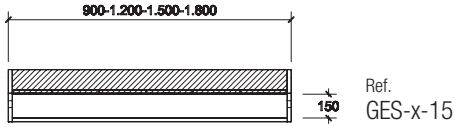


Ref.
GES-x-30



Ref.
GES-x-15

OVERHEAD UTILITY CARRIER

The evolution of the laboratory work requires continuous changes which can clash directly with rigid service structures. To solve these types of problems, it is becoming common to find services in overhead utility carriers which equipment is connected to.

Undoubtedly this system allows for a laboratory to adapt to any operative needs the user may have without having to make changes to the infrastructure.

Ref. GA-12 or GA-18

BENCHES

- “C” FRAME BENCHES
- PLINTH MOUNTED BENCHES
- MOBILE TABLES
- PREMIUM FURNITURE SYSTEM
- SINK UNITS
- BALANCE BENCHES
- POURING BENCHES
- CHROMATOGRAPHY BENCHES
- SCAFFOLD BENCHES
- STAINLESS STEEL FURNITURE
- WORK SURFACES

“C” FRAME BENCHES

To give continuity to the concept of flexibility, we have completely separated the bench from the service systems. We thus attain the ability to easily change the bench distribution and therefore, the functionality of the laboratory.

The design of all our benches focused on the concept of robustness by using the most resistant treatments and materials.

Although our system is based on using modular elements, our manufacturing structure allows us to adapt the benches to any conditioning factor in the laboratory, as well as develop special features.

“C” FRAME BENCHES

FRAMEWORK

Built in extremely robust 6063 T6 injected aluminum, our frames have an organic coating of epoxy-polyester with a metallic finish.

Each frame has leveling device to attain a perfectly levelled surface.

Our benches are certified according to UNE regulation UNE 13.150-01, creating modular units which can hold a vertical load of 100 kg. per linear meter.

PLINTH

The frames are finished off with a plinth built of cold-laminated steel with an organic coating of epoxy-polyester. In this way any pipes and cables are covered and the underside of the table is kept from getting dirty.

SERVICE COVER PANELS

The channels for cables and pipes are covered with service cover panels made of DC.01 cold-laminated steel with an epoxy-polyester coating on all sides.

These can be easily removed to make maintenance tasks simpler.

FRONT SLIDER BEAM

Built of 6060 T25 extruded aluminum with an epoxy-polyester coating with metallic finish.

Thanks to this front beam, the cabinets suspended on the entire length of the table can slide out completely unobstructed.

CABINETS

The C-shaped freestanding structures are designed to use sliding or wheeled cabinets.

The height of the benches is properly sized in order to add other types of equipment.

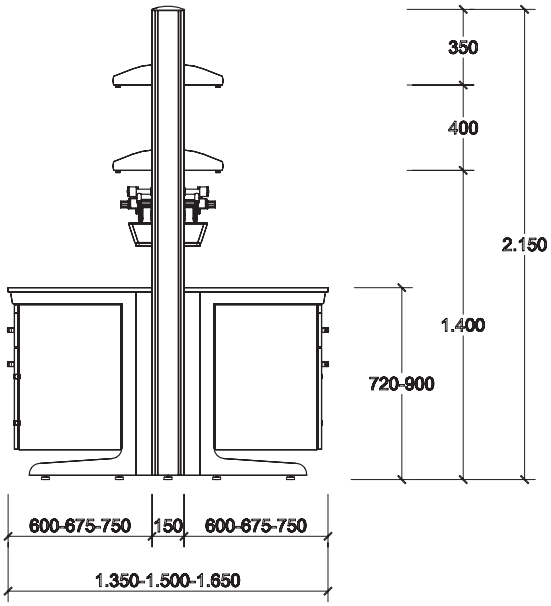
“C” FRAME BENCHES: APPLICATION POSSIBILITIES

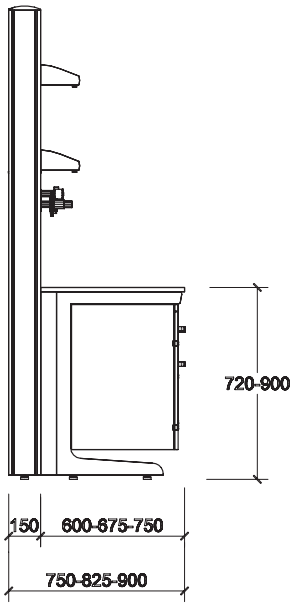
400 mm. SERVICE PANELS

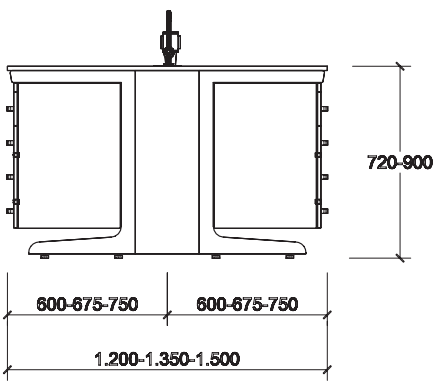
200 mm. SERVICE PANELS

SERVICE COLUMN

BENCHMOUNTED SERVICES







PLINTH MOUNTED BENCHES (FIXED)

Occasionally during the project, the way a laboratory and its uses are arranged is permanent: it is therefore unnecessary to plan for future changes in benches and fixtures. In these instances plinth mounted benches can be used.

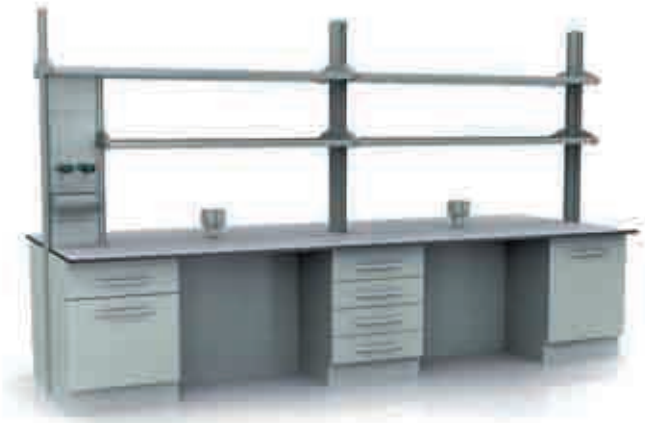
On these benches the worktop is fastened down to the cabinet itself, which in turn is supported on the floor with a sturdy plinth.

The service cover panels are easily removed to make maintenance tasks much quicker and easier.

The construction material used is DC.01 cold-laminated steel with an organic coating of epoxy-polyester resin.

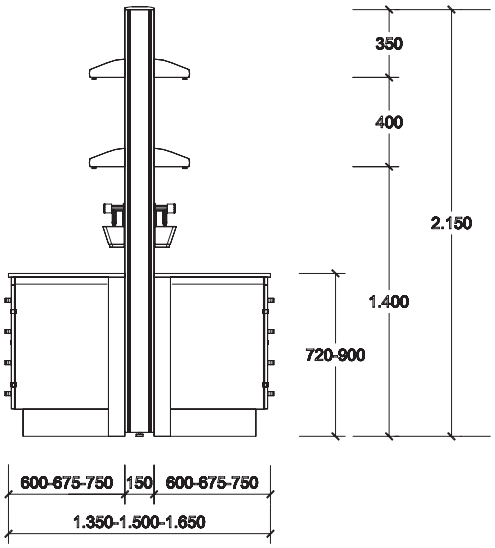
400 mm. SERVICE PANELS

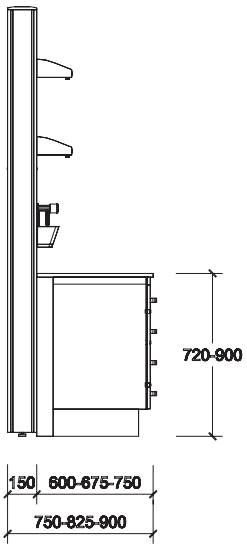
200 mm. SERVICE PANELS

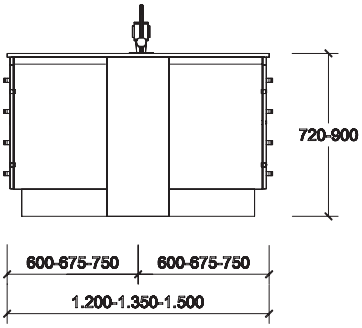


SERVICE COLUMN

BENCHMOUNTED SERVICES





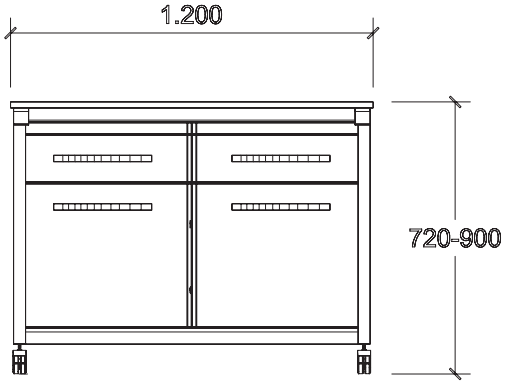


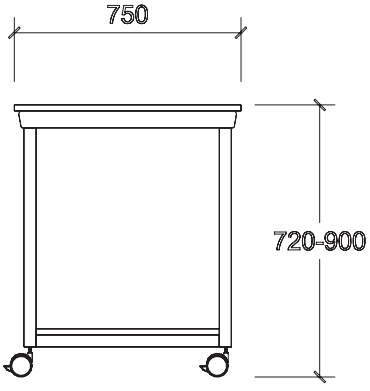
MOBILE TABLES

It is becoming more and more common to find laboratories which carry out work sporadically, making mobile tables rather useful.

The table modulation is the same as that of the service system, meaning they can be connected up to it perfectly.

These types of tables can bring a laboratory great flexibility when facing specific needs.





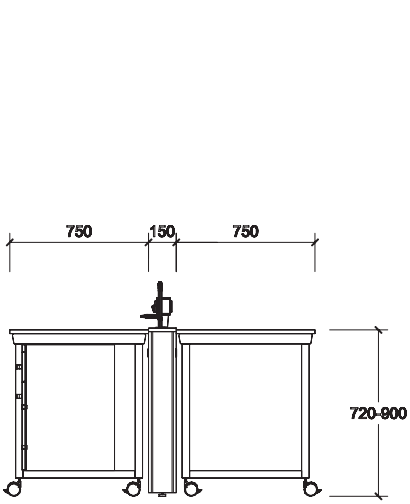
MOBILE TABLES: APPLICATION POSSIBILITIES

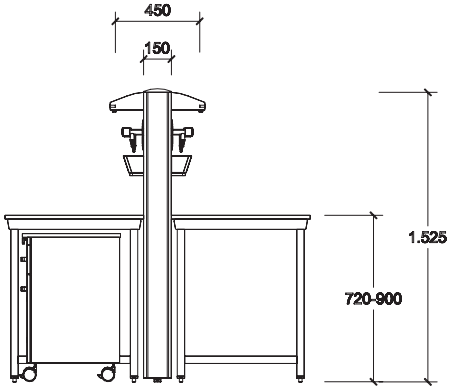
OVERHEAD UTILITY CARRIER

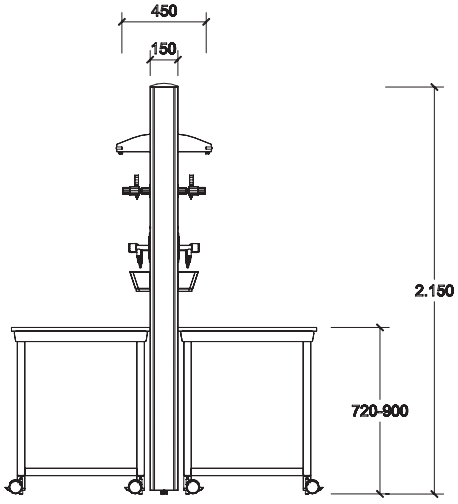
TALL SERVICE WALL

LOW SERVICE WALL

SERVICE WALL BENCH LEVEL







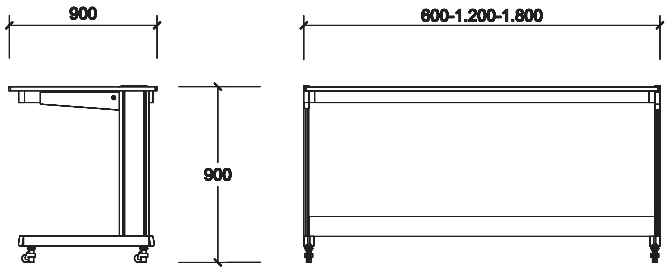
PREMIUM FURNITURE SYSTEM

The ever-changing nature of laboratories requires a completely flexible and functional system that can allow them to comfortably make thorough modifications to their benches and workspaces without having to make structural changes.

To cover these needs we have developed the PREMIUM System.

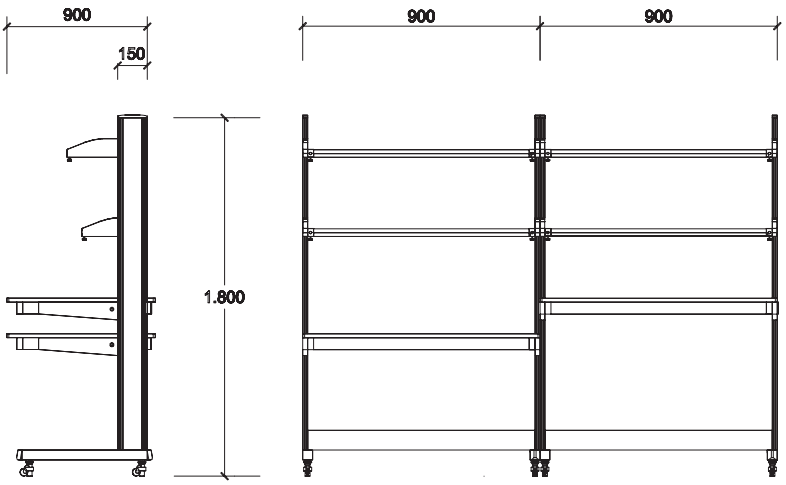
These benches can be rearranged effortlessly, thus making it easy to modify the laboratory distribution at any time.

- The extremely robust structures are made of 1.5 mm. thick steel with an organic coating of epoxy-polyester resin, in accordance with normative DC01.
- The highly resistant wheels are designed to bear up to 200 kg per wheel. The tables have built-in levelers to make them perfectly level.
- The benches are completely height-adjustable, and the large-sized benches are divided in two areas that can be adjusted independently.
- The height of the shelves is also easily and simply adjusted. To make even better use of the benches, the depth has been increased to 450 mm.



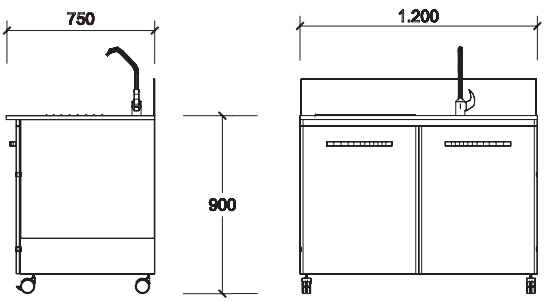
MOVEABLE TABLE

Ref. F1, F2, F3



MOBILE INSTRUMENT CART

Ref. G1, G2



SINK UNIT

Ref. D1, D2

PREMIUM FURNITURE SYSTEM: APPLICATION POSSIBILITIES

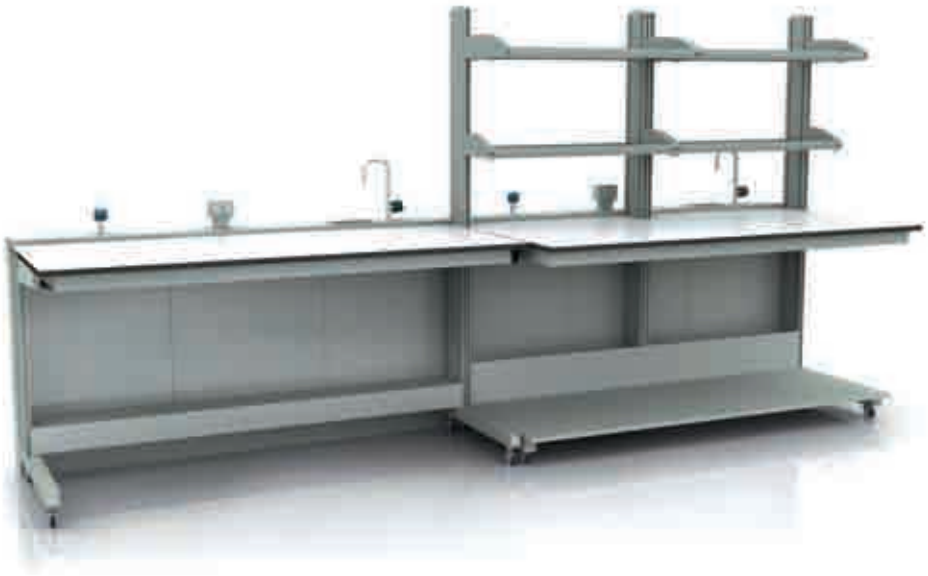
The PREMIUM System's flexibility is indisputable. The tables adapt to any of the service system options, creating multiple distribution possibilities as they can be effortlessly modified whenever necessary.

400 mm. SERVICE PANELS

200 mm. SERVICE PANELS

LOW SERVICE WALL

SERVICE COLUMN



LOW SERVICE WALL AND BENCHMOUNTED SERVICES

BENCHMOUNTED SERVICES

OVERHEAD UTILITY CARRIER

SINK UNITS

Sink units are highly essential pieces of furniture in laboratory operations. All these options can be connected up to the various service systems available, and be installed as individual units.

The products used in the laboratory and the items to be washed will determine the ideal material for the sink basin.

MATERIAL	DIMENSIONS			OBSERVATIONS
Ceramic			1350 x 650 FG-DI-1350	Material highly resistant to chemicals. Ideal for laboratories working with very aggressive materials. Its hardness can cause glass breakage.
	600 x 750 FG6-7	900 x 750 FG9-7-D/I	1500 x 650 FG-DI-1500	
			1650 x 650 FG-DI-1650	
Epoxy Resin	600 x 750 FE6-7	900 x 750 FE9-7-D/I	1500 x 650 FE-DI-1500	Good resistance to chemicals, though not as hard as ceramic.
			1650 x 650 FE-DI-1650	
Polypropylene	600 x 600 FP6-6	900 x 600 FP9-6-D/I	1350 x 650 FP-DI-1350	Material is well-suited for laboratories using less aggressive materials. Not very hard.
	600 x 675 FP6-67		1500 x 650 FP-DI-1500	
	600 x 750 FP6-7	900 x 675 FP9-67-D/I	1650 x 650 FP-DI-1650	
		900 x 750 FP9-7-D/I		
		1200 x 750 FP12-7		
Stainless steel	600 x 600 FI6-6	900 x 600 FI9-6-D/I	1350 x 650 FI-DI-1350	Material well-suited for cleaning areas. Special sinks can be built.
	600 x 675 FI6-67		1500 x 650 FI-DI-1500	
	600 x 750 FI6-7	900 x 675 FI9-67-D/I	1650 x 650 FI-DI-1650	
		900 x 750 FI9-7-D/I		
		1200 x 750 FI12-7		

COMPLEMENTARY ITEMS

ANTI-SPLASH SCREENS

EYE WASHERS

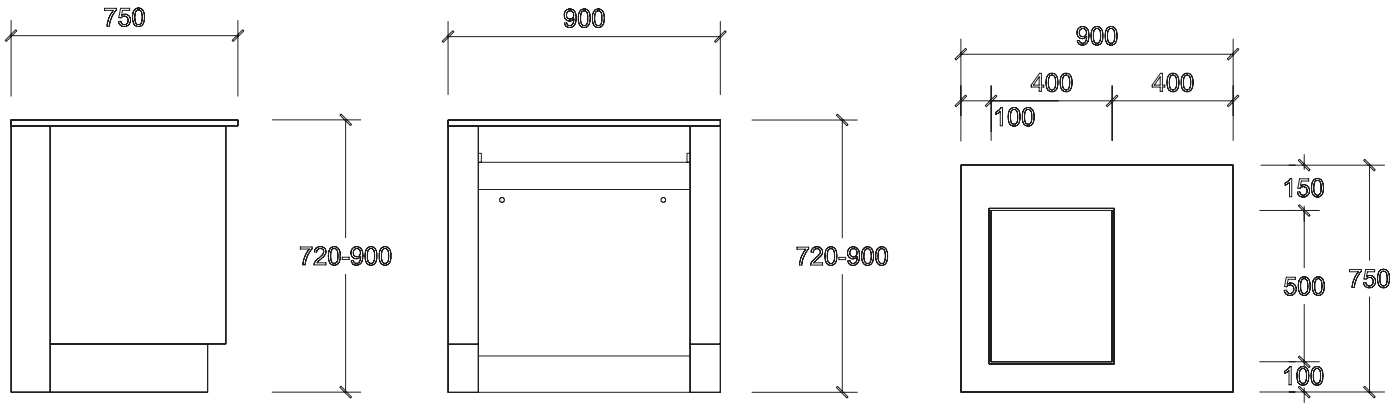
PEGBOARDS

PAPER AND SOAP DISPENSERS

BALANCE BENCH

Designed with elastic systems with a vibration frequency approaching 10 Hz.

These systems act like filters, absorbing a high amplitude percentage of frequency vibrations higher than 12 Hz that reach the system. This anti-vibration area is constructed by a large mass mounted over shock absorbers topped by a granite slab measuring 500 x 400 mm.

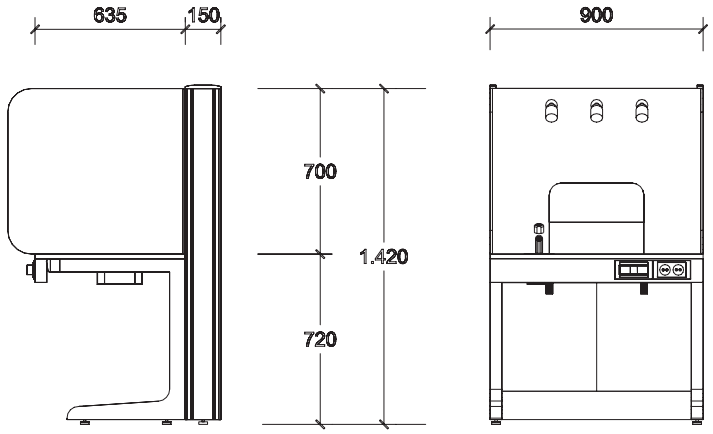


POURING BENCHES

POURING BENCHES

Designed to carry out liquid pouring tasks.
These are comprised of:

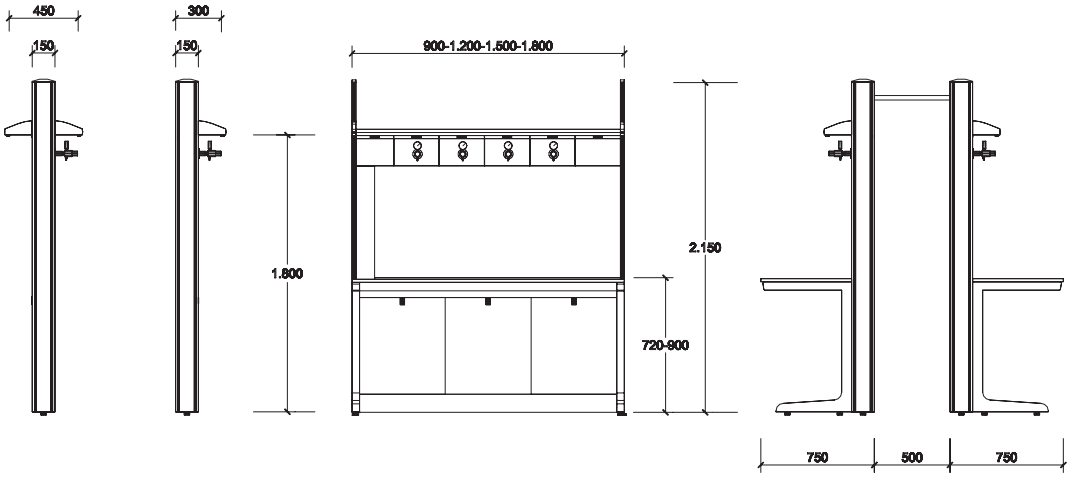
- Side panels made of compact resin.
- Stainless steel drip up.
- Chrome taps with automatic shut-off.
- Adjustable lighting system.



CHROMATOGRAPHY BENCH

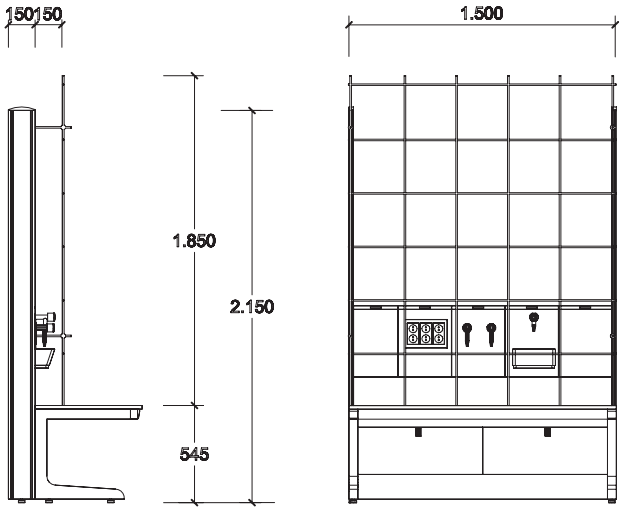
For properly carrying out projects in chromatography, we have developed benches for placing equipment with open backsides for recording.

Fine tuning valves have been placed above the equipment for rapid visualization.



SCAFFOLD BENCH

The scaffold bench has been specially designed to carry out chemical engineering projects and large assembly work. The scaffold is made of 12 mm. diameter stainless steel rods forming a 300 mm. grid.

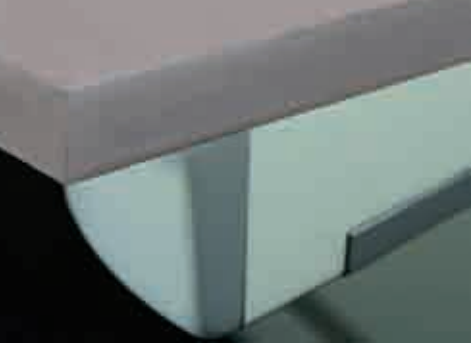


STAINLESS STEEL FURNITURE

- BENCHES FOR WASHING AREAS
- ALL TYPES OF SINKS
- PREPARATION AND WORK BENCHES
- MATERIAL DISTRIBUTION CARTS
- AUTOPSY TABLES
- SHELVES
- TALL DISPLAY CABINETS
- WALL MOUNTED CABINETS

For those laboratories where the level of cleanliness and hygiene must be absolute, we have developed a full furniture line built entirely out of stainless steel (18/10 AISI 304). This line includes all the furniture and services which are considered essential in a laboratory, resistant to any organic material.

WORK SURFACE



CERAMIC

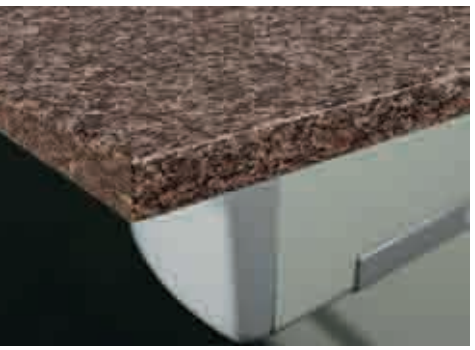
Surface highly resistant to chemicals and well-suited for laboratories using very aggressive products. This is an extremely hard material resistant to scratches, impact and contact with high temperatures.
Thickness: 20 mm. without edging and 35 mm. with edging.

TRESPA. TOP LAB PLUS

Work surface with a medium-high resistance to chemicals very well-suited for nearly any type of work. Performs well in wet conditions and the length of its pieces minimizes the number of joints.
Thickness: 20 mm. without edging.

TRESPA ATHLON

Material with lower chemical resistance than Top Lab-Plus but with good physical performance. Well-suited for laboratories with low chemical requirements.
Thickness: 20 mm. without edging.



GRANITE

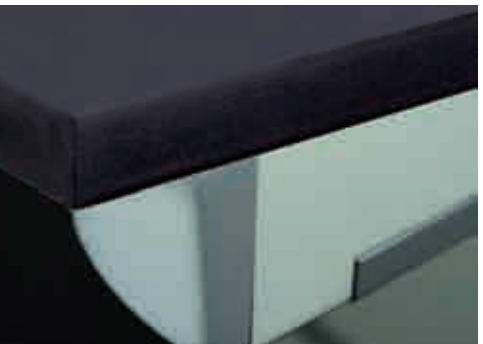
Material with a high chemical and physical resistance which makes smooth clean surfaces for all types of laboratories.
Thickness: 20mm. without edging.

STAINLESS STEEL

Good chemical, thermal and mechanical performance. It allows for table construction without joints for areas which require special cleaning.
These can be custom-made with or without anti-spill perimeter edging.
In any event, the work surfaces always come with a wall backsplash curved in a single piece.

MELAMINE

High-pressured laminate with a front post-form and PVC side edging.
Low resistance to wet conditions and fire. Only applicable for desktops.
Thickness: 30 mm. without edging.



EPOXY

Surface resistant to chemicals and well-suited for laboratories using aggressive products. This is a material resistant to impact and abrasion and easy to clean.
Thickness: 25 mm. without edging.

	Granite	Ceramic	Polypropylene	Trespa Toplab plus	Trespa Athlon	Epoxy / Durcon	Stainless steel	Secured glass
Chloridric Acid (1 N)	10	10	10	10	10	10	10	10
Chloridric Acid (1:1) (18%)	10	10	10	10	10	10	9	10
Chloridric Acid (36%)	10	10	10	10	10	10	9	10
Sulfuric Acid (1N)	10	10	10	10	10	10	9	10
Sulfuric Acid (10%)	10	10	10	10	10	10	9	10
Sulfuric Acid (30%)	10	10	10	10	10	10	9	10
Sulfuric Acid 1:1 (50%)	10	10	10	10	10	10	9	10
Sulfuric Acid (98%)	10	10	10	10	9	8	9	10
Nitric Acid (1N)	10	10	10	10	10	10	10	10
Nitric Acid (10%)	10	10	10	10	10	10	10	10
Nitric Acid (30%)	10	10	10	10	10	10	10	10
Nitric Acid (65%)	10	10	10	10	10	10	10	10
Chloridric Acid at 35% with Nitric Acid at 65%	10	10	10	10	10	9	8	10
Phosphoric Acid (86%)	10	10	10	10	10	10	10	10
Perchloric Acid (80%)	10	10	10	10	10	10	10	10
Fluoridric Acid (48%)	0	0	10	3	8	8	5	0
Acetic Acid 1N	10	10	10	10	10	10	10	10
Acetic Acid (50%)	10	10	10	10	10	10	10	10
Acetic Acid Frozen	10	10	10	10	10	10	10	10
Chromic Acid (40%)	10	10	10	10	10	9	9	10
Cltric Acid (30%)	10	10	10	10	10	10	10	10
Oleic Acid	10	10	10	10	10	10	10	10
Sodium Hydroxide (1N)	10	10	10	10	10	10	9	10
Sodium Hydroxide (20%)	10	10	10	10	10	10	9	10
Ammonium Hydroxide (28%)	10	10	10	10	10	10	9	10
Silver nitrate (1%)	10	10	10	10	10	10	10	10
Silver nitrate (10%)	10	10	10	10	10	10	10	10
Potassium permanganate (0,5M)	10	10	10	9	8	9	9	10
Potassium permanganate (10%)	10	10	10	9	8	9	9	10
Copper Sulfate (10%)	10	10	10	10	10	10	10	10
Potassium Chlorate	10	10	10	10	10	10	10	10
Sodium Hipochlorite (5%)	10	10	10	10	10	10	10	10
Sodium Carbonate (20%)	10	10	10	10	10	10	10	10
Potassium Dichromate (10%)	10	10	10	10	10	10	10	10
Etyl Acetate *	10	10	10	10	10	10	10	10
Acetone *	10	10	10	10	10	10	10	10
Acetonitrile	10	10	10	10	10	10	10	10
Etyl Alcohol (50%)	10	10	10	10	10	10	10	10
Etyl Alcohol (95%)	10	10	10	10	10	10	10	10
Dichloromethane	10	10	10	10	10	8,5	10	10
Acetic Anhydride	10	10	10	10	10	10	10	10
N-Butyl Acetate	10	10	10	10	10	10	10	10
N-Hexane *	10	10	10	10	10	10	10	10
Methyl Alcohol	10	10	10	10	10	10	10	10
Isopropyl Alcohol (96%)	10	10	10	10	9,5	10	10	10
Trichlorethylene	10	10	10	10	10	10	10	10
Toluene	10	10	10	10	10	10	10	10
Kerosene	10	10	10	10	10	10	10	10
Iso-octane	10	10	10	10	10	10	10	10
Heptane	10	10	10	10	10	10	10	10
Dichloroethane	10	10	10	10	10	8,5	10	10
Ethylmethylketone *	10	10	10	10	10	10	10	10
Diethylether	10	10	10	10	10	10	10	10
Benzene *	10	10	10	10	10	10	10	10
Phenol	10	10	10	10	10	10	10	10
Xylol	10	10	10	10	10	10	10	10
Chloroform *	10	10	10	10	9,5	9,5	10	10
Dimethlformamide	10	10	10	10	10	10	10	10
Dimethylsulfoxide	10	10	10	10	10	10	10	10
Nitrobenzene	10	10	10	10	10	10	10	10
Formaldehyde (37%)	10	10	10	10	10	10	10	10
Chrome oxyde (40%)	10	10	10	10	10	9	9	10
Hydrogen Peroxide	10	10	10	10	10	10	10	10
Iodine	10	10	8	8	8,5	8	9,5	10
Pyridine	10	10	10	10	10	10	10	10
Turpentine	10	10	10	10	10	10	10	10
Methylene blue (10%)	10	10	10	10	10	10	10	10
Methylene orange	10	10	10	10	10	10	10	10
Chromic mixture	10	10	10	10	10	10	9,5	10
Boiling water	10	10	10	9,5	9,5	10	10	10
Boiling acetone	10	10	10	9,5	10	9,5	10	10

* (Test done by direct contact in liquid state during 1 h)

STORAGE

- CABINETS FOR HIGH BENCHES
- CABINETS FOR LOW BENCHES
- WALL MOUNTED CABINETS
- TALL STORAGE & GLASS DISPLAY CABINETS
- ACID AND ALKALI STORAGE CABINETS
- SAFETY CABINETS

STORAGE

In building of all our furniture, the following basic principles have been held in highest regard:

- Durability
- Safety

In order to fulfill these principles, we have used the raw materials listed below:

- DC.01 cold-laminated steel, in accordance with EN Standard 10152, which has undergone the processes of lamination, degreasing, electrolytic zinc coating, phosphating, chroming, cold-cutting and cold-forming.
0.8 mm thicknesses are used for all elements, except in the guide rails and lintels, where 2 mm. is used.

- The steel is protected by an organic coating of epoxy-polyester resin applied electrostatically and kiln-dried for 15 minutes at 210º C.

The coating is done on all parts on both sides.

The panel coating is of polyvinyl chloride for easy-cleaning.

All these materials have A2 s1 d0 tolerance to fire according to EN 13501-1 standard and are completely inalterable in wet or contaminating conditions.

CABINETS

The cabinets are closed on all sides by internally fastened parts with a complete lack of exterior rivets or screws. This is why both inside and out all panels are smooth and easy to clean. Their front panels have rounded forms. All our cabinets, in any version, have an overhead panel to prevent dirt and dust from entering the interior. The sides are built with twin soundproof steel panels.

DRAWERS

These are formed by the union of a twin soundproof panel and a drawer in a single piece. The unit is able to bear 40-kg. loads.

The unit is mounted on telescopic guides which:

- Allow the maximum extraction of the drawer.
- Close smoothly using a shock-absorbing system.
- Prevent the drawer from moving laterally.

On wheeled cabinets, the drawers block automatically to keep from tipping over involuntarily.

DOORS

Built of twin soundproof steel panels with shock absorbers, they come fixed into the cabinet lintel with internally bolted hinges which completely impede the door from becoming dislodged during use. The hinges, as is the rest of the fixture, are protected by an epoxy-polyester coating.

The total opening is 270º.

SLIDING

Sliding cabinets are supported on a solid polyamide shoe with a 3-mm. steel backing. Its construction system guarantees enormous strength as well as smooth sliding action.

Wheeled cabinets come with double-ridged wheels which are highly resistant.

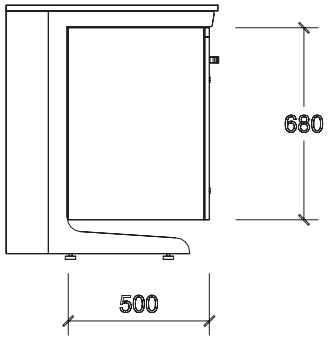
INNER PANELS

For under counter cabinets, we have designed inner panels able to storage tall bottles. In cabinets where a higher resistance to weight is required, these are built of twin steel panel walls.

All versions are height-adjustable.

CABINETS FOR HIGH BENCHES

SLIDING



MODEL	MD4-110-D/I	MD6-110-D/I
Width	450	600
Drawer	-	-
Door	1	1
Shelf	1	1
Filing Cab.	-	-

MODEL	MD4-111-D/I	MD6-111-D/I
Width	450	600
Drawer	1	1
Door	1	1
Shelf	1	1
Filing Cab.	-	-

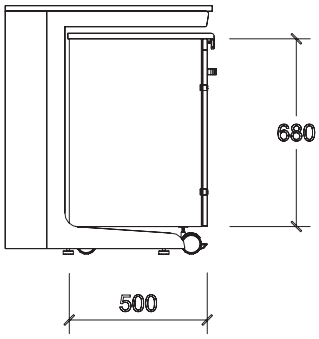
MODEL	MD4-104	MD6-104
Width	450	600
Drawer	4	4
Door	-	-
Shelf	-	-
Filing Cab.	-	-

MODEL	MD9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

MODEL	MD9-221
Width	900
Drawer	1
Door	2
Shelf	1
Filing Cab.	-

MODEL	MD9-205
Width	900
Drawer	5
Door	-
Shelf	-
Filing Cab.	-

WITH WHEELS



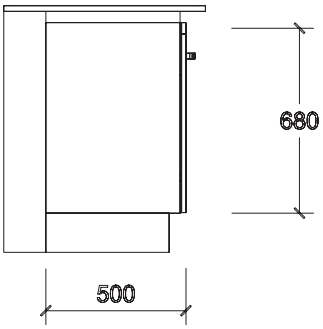
MODEL	MR6-110-D/I
Width	600
Drawer	-
Door	1
Shelf	1
Filing Cab.	-

MODEL	MR6-111-D/I
Width	600
Drawer	1
Door	1
Shelf	1
Filing Cab.	-

MODEL	MR6-104
Width	600
Drawer	4
Door	-
Shelf	-
Filing Cab.	-

MODEL	MR9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

WITH PLINTH (FIXED)



MODEL	MZ4-110-D/I	MZ6-110-D/I
Width	450	600
Drawer	-	-
Door	1	1
Shelf	1	1
Filing Cab.	-	-

MODEL	MZ9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

MODEL	MZ4-111-D/I	MZ6-111-D/I
Width	450	600
Drawer	1	1
Door	1	1
Shelf	1	1
Filing Cab.	-	-

MODEL	MZ9-221
Width	900
Drawer	1
Door	2
Shelf	1
Filing Cab.	-

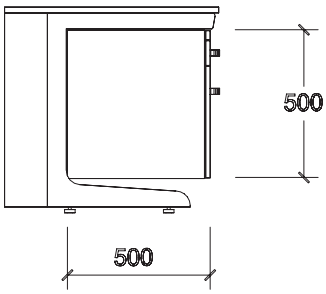
MODEL	MZ4-104	MZ6-104
Width	450	600
Drawer	4	4
Door	-	-
Shelf	-	-
Filing Cab.	-	-

MODEL	MZ9-205
Width	900
Drawer	5
Door	-
Shelf	-
Filing Cab.	-

Any model has been designed to achieve the maximum capacity. Other models are available upon request.

CABINETS FOR LOW BENCHES

SLIDING



MODEL	MDB4-110-D/I
Width	450
Drawer	-
Door	1
Shelf	1
Filing Cab.	-

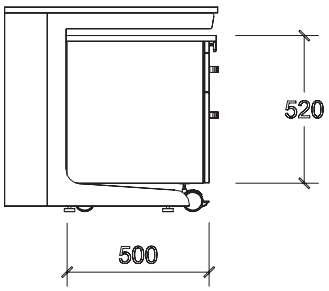
MODEL	MDB4-102-AR
Width	450
Drawer	1
Door	-
Shelf	-
Filing Cab.	1

MODEL	MDB4-103
Width	450
Drawer	3
Door	-
Shelf	-
Filing Cab.	-

MODEL	MDB9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

MODEL	MDB9-203
Ancho	900
Cajón	3
Puerta	-
Entrepaño	-
Archivador	-

WITH WHEELS



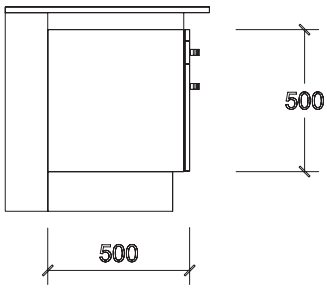
MODEL	MRB4-110-D/I
Width	450
Drawer	-
Door	1
Shelf	1
Filing Cab.	-

MODEL	MRB4-102-AR
Width	450
Drawer	1
Door	-
Shelf	-
Filing Cab.	1

MODEL	MRB4-103
Width	450
Drawer	3
Door	-
Shelf	-
Filing Cab.	-

MODEL	MBR9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

WITH PLINTH



MODEL	MZB4-110-D/I
Width	450
Drawer	-
Door	1
Shelf	1
Filing Cab.	-

MODEL	MZB4-102-AR
Width	450
Drawer	1
Door	-
Shelf	-
Filing Cab.	1

MODEL	MZB4-103
Width	450
Drawer	3
Door	-
Shelf	-
Filing Cab.	-

MODELO	MZB9-203
Width	900
Drawer	3
Door	-
Shelf	-
Filing Cab.	-

MODELO	MZB9-220
Width	900
Drawer	-
Door	2
Shelf	1
Filing Cab.	-

UNDER FUME HOODS CABINETS

MODEL	MVG-110-D/I
Width	600
Door	1
Shelf	1

MODEL	MVG-220
Width	900
Door	2
Shelf	1

WALL MOUNTED CABINETS

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Door Shelf	600 mm.	390 mm.	750 mm.	**MS-110-D/I**

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
2 Doors	900 mm.	390 mm.	750 mm.	**MS-220**
Shelf	1.200 mm.			**MS-320**

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Sliding glass doors	900 mm.	370 mm.	750 mm.	**MS-200-L**
Shelf	1.200 mm.			**MS-300-L**

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Shelf	900 mm.	370 mm.	750 mm.	**MS-200**
	1.200 mm.			**MS-300**
	1.500 mm.			**MS-400**

Built of DC.01 cold-laminated steel with an organic coating of epoxy-polyester resin.
Shelves are height-adjustable and consist of a double steel panel with a non-friction polyvinyl chloride coating.

TALL STORAGE CABINETS

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Doors Shelves Locks	900 mm. 1.200 mm.	450 mm.	2.000 mm.	**MV-9-P** **MV-12-P**

GLASS DISPLAY CABINETS

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Doors Sliding glass panels Shelves Locks	900 mm. 1.200 mm.	450 mm.	2.000 mm.	**MV-9-L** **MV-12-L**

ACID AND ALKALI STORAGE CABINETS

ACID AND ALKALI STORAGE CABINETS

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Blind doors	600 mm.	580 mm.	2.000 mm.	**MAB-60-D/I**
Glass door	600 mm.	580 mm.	2.000 mm.	**MAB-60-DC/IC**

With built-in extraction

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Blind doors	600 mm.	580 mm.	2.250 mm.	**MAB-60-DS/IS**
Glass door	600 mm.	580 mm.	2.250 mm.	**MAB-60-DCS/ICS**

Entirely built of cold-laminated galvanized steel with epoxy-polyester coating.

Comprised of 2 independent bodies with folding doors and separate locks.

Interior has 5 easily-removed polypropylene drawers.

ACID AND ALKALI STORAGE CABINETS UNDER FUME HOODS

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
Door	600 mm.	500 mm.	720 mm.	**MABB-60-IA** **MABB-60-DB**

FEATURES	WIDTH	DEPTH	HEIGHT	CODE
2 doors	900 mm.	500 mm.	720 mm.	**MABB-90-A** **MABB-90-B**

It is recommended for acid and alkali storage cabinets under fume hoods to include extraction.

SAFETY CABINETS

TALL CABINETS

FEATURES	DIMENSIONS
3 Shelves 1 Perforated tray 1 Spill tray	1.195 x 595 x 2.080 mm.

FEATURES	DIMENSIONS
3 Shelves 1 Perforated tray 1 Spill tray	595 x 595 x 2.080 mm.

FEATURES	DIMENSIONS
20 Tray-shelves	1.195 x 595 x 2.080 mm.

FEATURES	DIMENSIONS
10 Tray-shelves	595 x 595 x 2.080 mm.

FEATURES	DIMENSIONS
12 Trays	1.195 x 595 x 2.080 mm.

FEATURES	DIMENSIONS
6 Trays	595 x 595 x 2.080 mm.

For storing dangerous substances in accordance with EN standards EN 14470-1 and TRBF20 Anexo L.
Fire-resistant for 90 minutes.
Exterior built of laminated steel with high-resistant coating.
Locking doors.
Ventilation conduit on all levels with option to install extractor.
Includes wheeled base.

LOW CABINETS

FEATURES	DIMENSIONS
1 Drawer 1 Spill tray 1 Perforated tray	600 x 495 x 700 mm. 1.100 x 495 x 700 mm.

FEATURES	DIMENSIONS
Door 1 Spill tray 1 Perforated tray	600 x 495 x 600 mm.
2 Doors 1 Spill tray 1 Perforated tray	1.100 x 495 x 700 mm.

FEATURES	DIMENSIONS
2 Doors 1 Spill tray 1 Perforated tray	1.400 x 495 x 700 mm.

FEATURES	DIMENSIONS
2 Doors 1 Drawer 1 Spill tray 1 Perforated tray	1.400 x 495 x 700 mm.

FEATURES	DIMENSIONS
1 Bottle of 50 l.	595 x 595 x 2.099 mm.
2 Bottle of 50 l.	895 x 595 x 2.099 mm.
3 Bottle of 50 l.	1.195 x 595 x 2.099 mm.
4 Bottle of 50 l.	1.395 x 595 x 2.099 mm.

FOR GAS TANKS (INTERIOR)

Fire resistant to 20 minutes in accordance with Standard EN 14470-2
Exterior built of laminated steel with high-resistant coating.
Locking doors.
Installed with rails to fasten regulator, tank holders and folding platform to access tanks.
Ventilation conduit on all levels with option to install extractor.

CAPACITY	DIMENSIONS
2 50 l tanks	650 x 400 x 2.050 mm.
3 50 l tanks	950 x 400 x 2.050 mm.
4 50 l tanks	1.250 x 400 x 2.050 mm.

FOR GAS TANKS (EXTERIOR)

Built of 1.5 mm. thick folded and welded sheet metal with a protective epoxy-polyester paint with rails to hold bottles and ventilation slats.

FUME HOODS

- SAFETY
- ERGONOMICS
- STANDARD EN 14175-2
- CLIMATE CONTROL AND ENERGY SAVINGS
- FUME HOODS ADAPTA PREMIUM
  - FOR GENERAL USE (VA)
  - WALK-IN FUME HOODS (SM)
  - LARGE ASSEMBLY WITH LOW WORK SURFACE (SB)
  - FOR PERCHLORIC ACID (PC)
  - FOR STRONG ACIDS (AC)
  - FOR BETA AND GAMMA RADIOISOTOPES

FUME HOODS

Most hazardous tasks carried out in a laboratory take place inside a fume hood. The fundamental purpose of this type of equipment is therefore guaranteeing the safety of the user at all times.

Guided by this principle, our fume hoods have been gradually improved as the requirements demanded by safety standards have become much stricter: the current EN 14175-2, ANSI/ASHRAE-110 and NTP.

But we have not conformed ourselves to merely complying with these basic requisites when developing our fume hoods, as we have also made them ergonomic pieces of equipment comfortable for the user, not to mention being profitable and respectful towardds the environement.

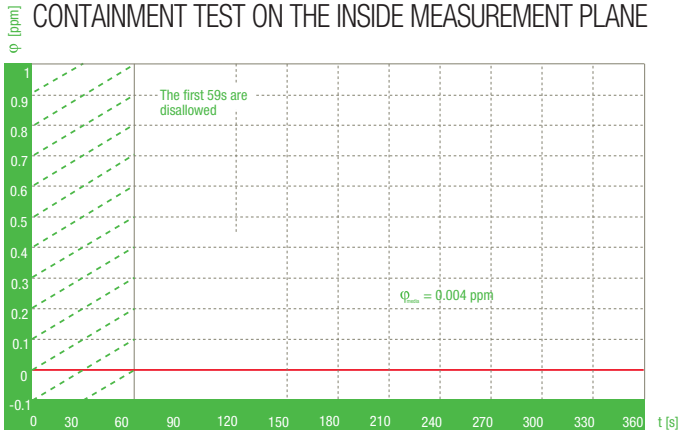
The intensive use of metal and inert materials in their manufacturing cause Flores Valled fume hoods to have an extremely environmental impact when reaching the end of their usefulness, as pratically all of their components are recyclable.

This principle, which has guided the design of the fume hoods we now present you, allows us to stay a step ahead of current standards.

SAFETY

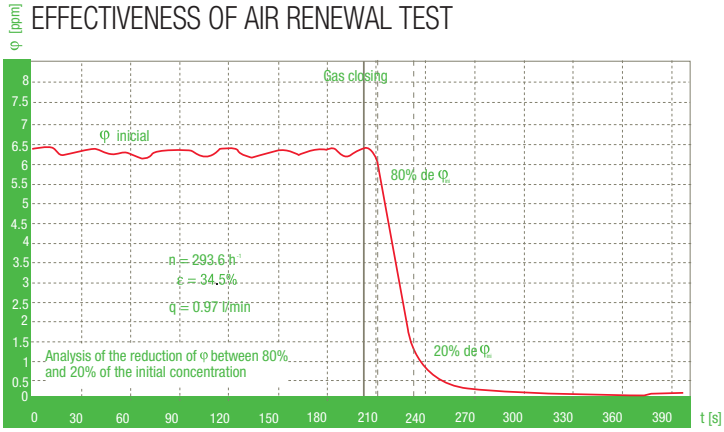
Flores Valles fume hoods are the result of highly detailed technical construction and the strictest tests recommended by current regulations. Thus we have been able to build a piece of equipment which can guarantee user safety at all times.

CONTAINMENT TEST ON THE INSIDE MEASUREMENT PLANE



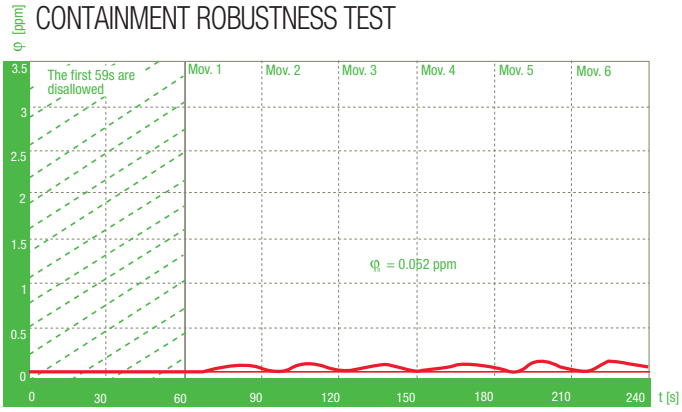
Interior measurement plane of a 1500-mm. wide fume hood. Sash height is 500 mm. Air flow speed is 0.4 m/s

EFFECTIVENESS OF AIR RENEWAL TEST

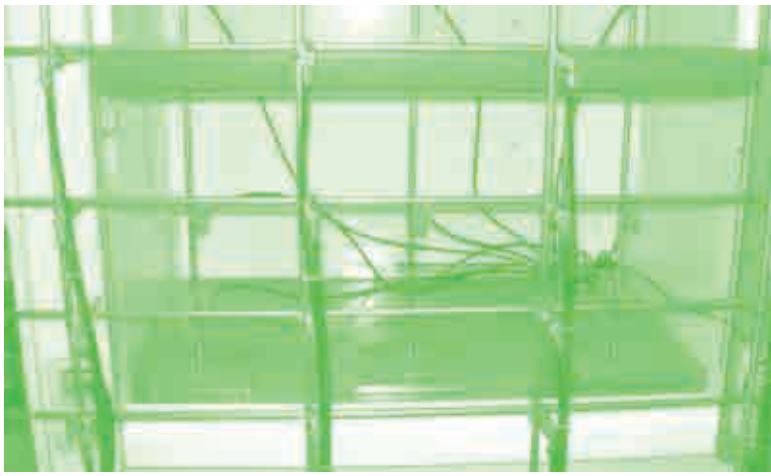


Effectiveness of air renewal in a 1500-mm. wide fume hood. Sash height is 30 mm. Air flow extraction is 900 m^3/s.

CONTAINMENT ROBUSTNESS TEST



Containment robustness in a 1500-mm. wide fume hood. Sash height is 500 mm. Air flow speed is 0.4 m/s.



AIRFLOW INDICATOR CONTROL

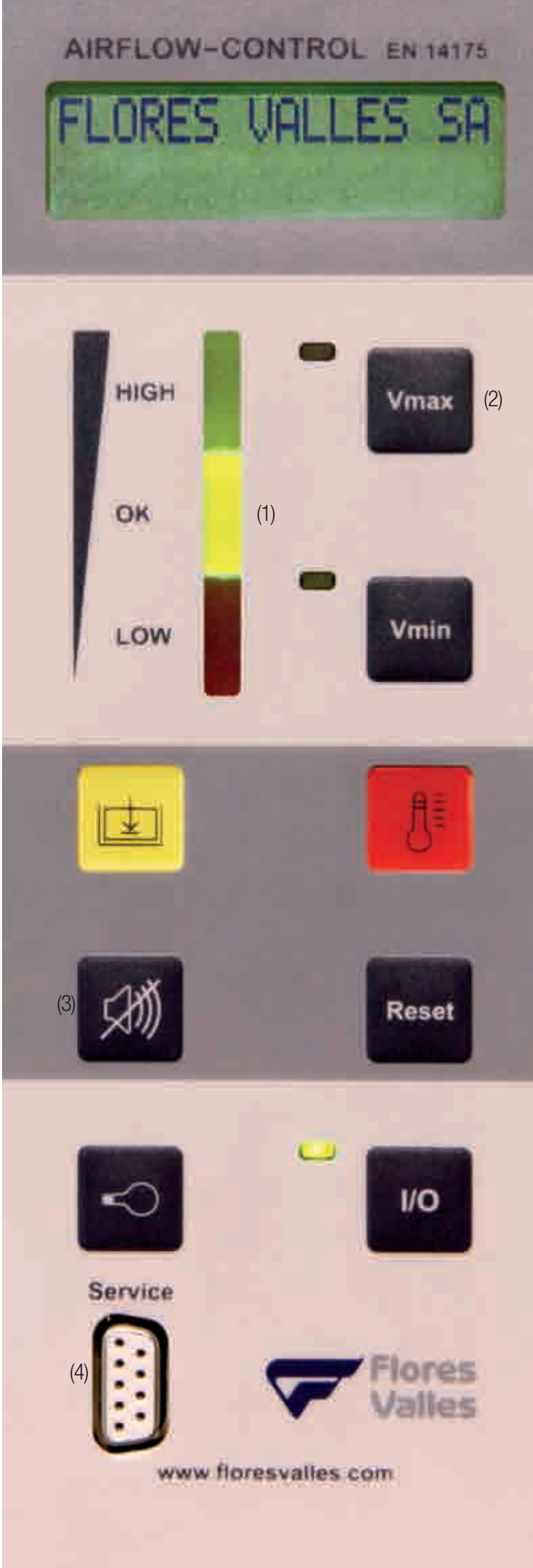
Point 8 of Standard EN 14175-2 requires all fume hoods to have an airflow gauge which unambiguously demonstrates the device is operating properly.

This indicator must be easily verifiable and have visual and acoustic alarms to inform the user of the operational status of the fume hood.

Our line of VA fume hoods has an SG AIR FLOW INDICATOR which visually controls and monitors the operational status of the extraction (1) whether there is a constant or variable airflow (2).

It also features visual and acoustic indicators (3) which alert the operator on any possible anomalies in the fume hood that are due to a lack of extraction.

The advisory and operational conditions can be programmed to specific user requirements by making simple changes in the software using the RS-232 connector (4).



SAFETY

Point 6 of EN standard 14175-2 indicates that fume hoods must be made of materials resistant to MECHANICAL, CHEMICAL AND THERMAL FORCES AND MUST NOT BE EASILY COMBUSTIBLE.

Due to the nature of the work usually carried out in a fume hood, there is a fire hazard which is the result of possible explosions or fires inside the apparatus.

In prevision of these accidents, all our fume hoods have been designed to **protect the user at all times** by incorporating the highest number of operational and constructive safety measures possible.

OVERHEATING ALARM

An internal device set inside the cabin activates the alarm when the interior becomes overheated.

If at any time during the operation the interior temperature surpasses the established limit, the system automatically activates:

- The alarm light (5)
- The alarm bell (3)
- An alarm signal is sent to the central safety control system, if there is one.
- The exhaust function stops in order to prevent any fire from spreading. The exhaust stoppage occurs if the temperature reaches a 2nd programmed value.

COMPLETELY INCOMBUSTIBLE CONSTRUCTION

Flores Valles fume hoods have two safety barriers to prevent fires from spreading:

INTERIOR CABIN BODY
Built of 1.5 mm. thick electro-galvanized steel in compliance with EN standard 10152, and coated in ADIPROL® (heat-cured resin with little cross-linking). This construction method provides high chemical resistance and a great contention capacity in the event of fire (A2 s1 d0 material), in addition to providing the fume hood with great durability.

EXTERIOR BODY
Built of 1- to 2 mm. thick DC.01 cold-laminated steel, in compliance with EN 10152 standard, and protected with an organic coating of epoxy-polyester resin.

The exterior shell forms a second safety barrier in event of fire or explosion.

The block underneath the fume hood is also made of completely incombustible materials (A2 s1 d0).

If too much pressure builds inside the fume hood as a result of an explosion, the expanding wave is efficiently discharged towards the exterior through the lighting housing located in the top panel.

ADIPROL® is INALTERABLE in contact with:

Hydrochloric Ac. (36%)
Sulfuric Ac. 1:1 (50%)
Nitric Ac. (65%)
Hydrochloric Ac. at 36 % with Nitric Ac. at 65 % (1:1)
Phosphoric Ac (86%)
Perchloric Ac. (80%)
Hydrofluoric Ac. (48%)
Acetic Ac. (50%)
Glacial Acetic Ac.
Chromic Ac. (40%)
Sodium Hydroxide (20%)
Silver Nitrate (10%)
Copper Sulfate (10%)
Sodium Hypochlorite (5%)
Ethyl Acetate

Acetone
Acetonitrile
Dichloromethane
Trichloroethylene
Toluene
Kerosene
Heptane
Xylol
Dimethyl formamide
Dimethyl sulphoxide
Nitrobenzene
Formaldehyde (37%)
Hydrogen Peroxide (Oxygenated water), 30v
Methylene Blue (10%)
Methyl Orange (saturated solution)

(Test carried out through direct contact of liquid phase for one hour)

ERGONOMICS

In addition to safety considerations, we have developed our line of fume hoods to take user comfort into close account. All our models have a great number of features which make them easy to use and maintain:

VERTICALLY ARRANGED SERVICES

These make maneuvering easier and prevent deterioration due to spillage. In addition to their direct opening-to-tap connections, they have been easily and clearly identified.

ELECTRICITY

In accordance with point 9.3 of EN Standard 14175-2, the electrical sockets are located on the exterior of the fume hood; this prevents the risks of explosion which may occur when plugging in cables inside the fume hood.

The protective level of the electrical mechanisms is IP55, higher than the IP44 level stipulated in the standard.

SPACIOUS INTERIOR:

The construction of our fume hoods provides for the most amount of space inside the hood, making spacious and comfortable work areas.

The work surface can be single-kilned ceramic, epoxy resin, stainless steel and polypropylene in a single piece with a perimeter marine edge to contain spills, in accordance with Standard DIN-12912.

MOTORIZED SASH

The option of having a motorized sash allows it to be raised and lowered both manually and automatically.

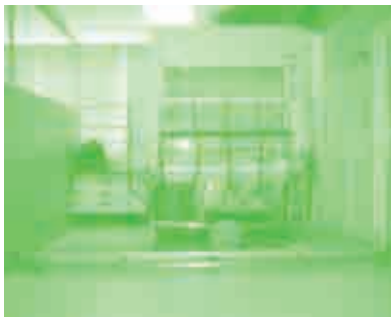
To prevent accidents, there is a built-in optical sensor that detects obstacles. The sash is suspended by two stainless steel cables with an anti-drop safety system.

EASY MAINTENANCE

The entire design of the fume hood is focused on reducing maintenance time and cost. All components are accessed from the front panel without having to move the equipment once it has been installed.

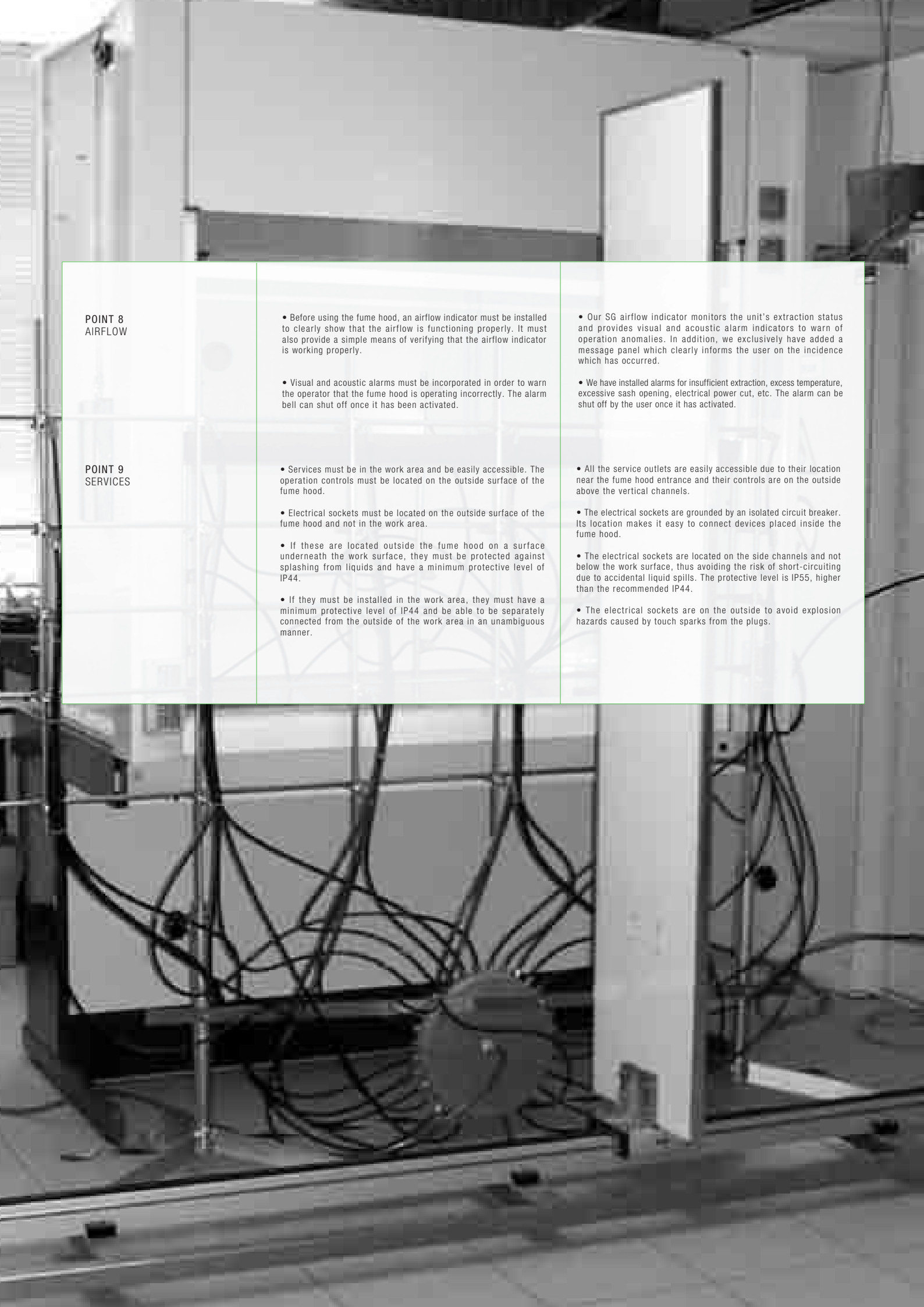
The control panel alerts the operator as to any type of incidence occurring in the operation of the fume hood, such as a lack of power, a short circuit in the sockets area, etc.

EN 14175 STANDARD



Flores Valles fume hoods comply and often surpass the safety and operational standards stipulated in EN 14175-2 standard

	EN 14175-2 STANDARD	FLORES VALLES FUME HOOD
POINT 4 DIMENSIONS	• The width must be a multiple of 100 mm with the ideal dimensions being 1200 and 1500 mm. • The accepted depth must be between 600 and 1200 mm. • The height of the work surface must not be higher than 900 mm., with the preferred heights being 0, 500, 720 and 900 mm.	• Flores Valles fume hoods have 5 widths running from 900 mm to 2100 mm (900, 1200, 1500, 1800 and 2100 mm.) • There are two depth options: 810 mm. and 960 mm., depending on the size of the hood and the model (see configuration tables). • We have three work surface heights: 0, 500 and 900 mm., which allows us to match all user requirements.
POINT 6 MATERIALS	• The hoods must be made of materials resistant to mechanical, chemical and thermal forces. They cannot be easily combustible • The sash located between the operator and the work area must be constructed of laminated safety glass or tempered safety glass or appropriate plastic materials.	• Flores Valles fume hoods are entirely constructed of metal material with an ADIPROL® coating with provides them with high mechanical, chemical and thermal resistance in the event of a fire (M0 incombustible materials). • The sash is made of tempered safety glass, which has a much higher resistance to impact and thermal shock than laminated sheet glass.
POINT 7 SAFETY REQUIREMENTS	• The fume hood work surface must be flat with a front marine edge. The marine edge must border the work surface on all sides • The work surface must bear loads up to 2000 N applied over an area of 120 x 120 mm. without being damaged or distorted • Baffles must be made in such a way that they are easy to clean and maintain. • ... in the event an explosion occurs in the work area, there must be a means of effectively discharging any expanding waves. • There must be safe and easy access to all mechanical and electrical equipment in the fume hood. • The base must support the weight of the fume hood without experiencing any distortion or instability. • The maximum working opening preferably should be 500 mm • Some type of limiting device must be installed to prevent the sash from opening more than the maximum working opening It must be impossible to annul the limit without the operator's deliberately doing so. • It is preferable to install a visual and acoustic alarm which indicates to the operator that the sash has been opened above the maximum working aperture. • The sash must not fall when the safety mechanism fails. • The sash suspension mechanisms must not be exposed to the air in the work area. If so, they must be properly protected against corrosive air conditions. • If the hood uses a motorized sash which activates automatically, it must be able to be manually stopped. It is recommended to have a motion-stopping device installed in case of obstruction. • The sash must minimize the risk of splashing and particle projection. • The size and position of the handle must not present any type of risk to the operator by reducing their field of vision.	• Our work surfaces, whether they are solid ceramic, epoxy resin, steel or polypropylene, comply with this requirement as all have a marine perimeter edge. • This load requirement is complied with in all the materials used in our work surfaces – ceramic, epoxy resin, stainless steel and polypropylene - thanks to their excellent support structure below. • Our baffles can be removed and are free of service connections (taps). • Any expanding waves are effectively discharged through the housing in the lighting system. • All these devices are easily accessed from the front panel. • Our base is built of steel which has high mechanical resistance, thus completely guaranteeing the sturdiness of the equipment. • For the most safety and best ergonomics, we have set the maximum working height at 400 mm. • In fume hoods with manually activating sashes, we have installed a mechanical block, while in fume hoods with motorized sashes, it is the motor system itself which detains the sash at the programmed working height. • This required visual and acoustic alarm is built into the SG control panel and remains active until the user lowers the sash below the established height. • The sash is held up by 2 steel cables with a 1050 kg breakage load and remains statically balanced by only one cable. • The entire sash suspension system - fasteners, pulleys etc.- is found on the exterior and therefore is unaffected by any corrosive air conditions. • The motorized option allows for the sash to be raised automatically and manually. It has an optical stopping device in the case of obstruction. • The sash constitutes a highly effective protection against splashing inside the work area from 0 to 400 mm from the opening. • The handle efficiently fits into the fume hood's aerodynamic operation and does not reduce the operator's field of vision when the sash moves into the work area.



POINT 8 AIRFLOW	• Before using the fume hood, an airflow indicator must be installed to clearly show that the airflow is functioning properly. It must also provide a simple means of verifying that the airflow indicator is working properly. • Visual and acoustic alarms must be incorporated in order to warn the operator that the fume hood is operating incorrectly. The alarm bell can shut off once it has been activated.	• Our SG airflow indicator monitors the unit's extraction status and provides visual and acoustic alarm indicators to warn of operation anomalies. In addition, we exclusively have added a message panel which clearly informs the user on the incidence which has occurred. • We have installed alarms for insufficient extraction, excess temperature, excessive sash opening, electrical power cut, etc. The alarm can be shut off by the user once it has activated.
POINT 9 SERVICES	• Services must be in the work area and be easily accessible. The operation controls must be located on the outside surface of the fume hood. • Electrical sockets must be located on the outside surface of the fume hood and not in the work area. • If these are located outside the fume hood on a surface underneath the work surface, they must be protected against splashing from liquids and have a minimum protective level of IP44. • If they must be installed in the work area, they must have a minimum protective level of IP44 and be able to be separately connected from the outside of the work area in an unambiguous manner.	• All the service outlets are easily accessible due to their location near the fume hood entrance and their controls are on the outside above the vertical channels. • The electrical sockets are grounded by an isolated circuit breaker. Its location makes it easy to connect devices placed inside the fume hood. • The electrical sockets are located on the side channels and not below the work surface, thus avoiding the risk of short-circuiting due to accidental liquid spills. The protective level is IP55, higher than the recommended IP44. • The electrical sockets are on the outside to avoid explosion hazards caused by touch sparks from the plugs.

CLIMATE CONTROL AND ENERGY SAVINGS

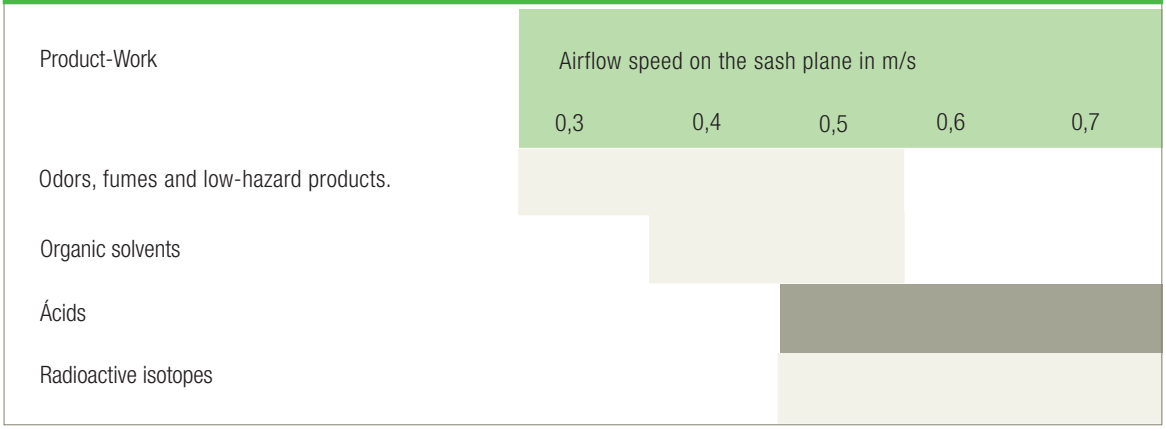
Once user safety has been guaranteed, a fume hood in a properly run laboratory project must incorporate the aforementioned requirements into the climate control of the room or building. In this way there can be a reduction in the average air usage and environmental impact when exhausting it outside.

To do this, the project must take into account:

- The appropriate laboratory ventilation requirements for the work its users are carrying out. Standard DIN 1946 recommends a chemical laboratory to renew 25 m^3 of air per m^2 of laboratory space per hour.
- The amount of fume hoods per laboratory.
- The type of work carried out and the products used.

For a fume hood to properly carry out its function we must guarantee an exhaust differential in respect to the air movement in the laboratory.
We must also take into consideration the physical conditions of the work itself as well as the generation of condensation through the absorption of acids or variations in temperature and humidity.

EXHAUST REQUIREMENTS ON A PRODUCT-WORK BASIS.



ADJUSTED FLOW Recommended.

CONSTANT FLOW Recommended.

Average air usage can also be reduced to attain greater savings.

The right air management is consequence of its responsible usage by the user, the use of airflow adjustment systems and an automatic closing feature on the fume hood:

Therefore the complete air management system of Flores Valles fume hoods consists of:

1. Válve
2. Electronic airflow adjustment module
3. Position, temperature and pressure sensors.
4. Control panel.
5. Motor system and electronic module.
6. Motion sensor.
7. Optical safety barrier.

By using all these systems we can attain significant energy savings.

	Set of 10 1500-size fume hoods working simultaneously 10 hours a day, 240 days a year.	Air costs m^3/h		Air costs m^3/year	Yearly climate controls costs	Investment fixed costs	Savings in 10 years
		1 FUME HOOD	10 FUME HOODS				
A	Standard fume hoods working at constant airflow speed of 0.5 m/s with a sash open to 400 mm according to the working height	1.134 m^3/h	11.340 m^3/h	27.216.000 m^3/year	27.216 €		0 €
B	Fume hoods with a variable airflow, with the following operation hypotheses:						98.000 €
	2 fume hoods with a totally open sash	1.300 m^3/h	2.600 m^3/h				
	6 fume hoods with a sash at the working height	750 m^3/h	4.500 m^3/h				
	2 fume hoods with the sash closed	250 m^3/h	500 m^3/h				
	TOTAL		7.600 m^3/h	18.240.000 m^3/year	18.240 €		
	Larger net investment (Hood cost overrun minus equipment climate control savings)					-8.240 €	
C	Fume hoods with a variable airflow and automatic lowering of the sash, with the following operation hypotheses:						135.223 €
	1 fume hood with a totally open sash	1.300 m^3/h	1.300 m^3/h				
	4 fume hoods with a sash at the working height	750 m^3/h	3.000 m^3/h				
	5 fume hoods with the sash closed	250 m^3/h	1.250 m^3/h				
	TOTAL		5.550 m^3/h	13.320.000 m^3/year	13.320 €		
	Larger net investment (Hood cost overrun minus equipment climate control savings)					3.737 €	

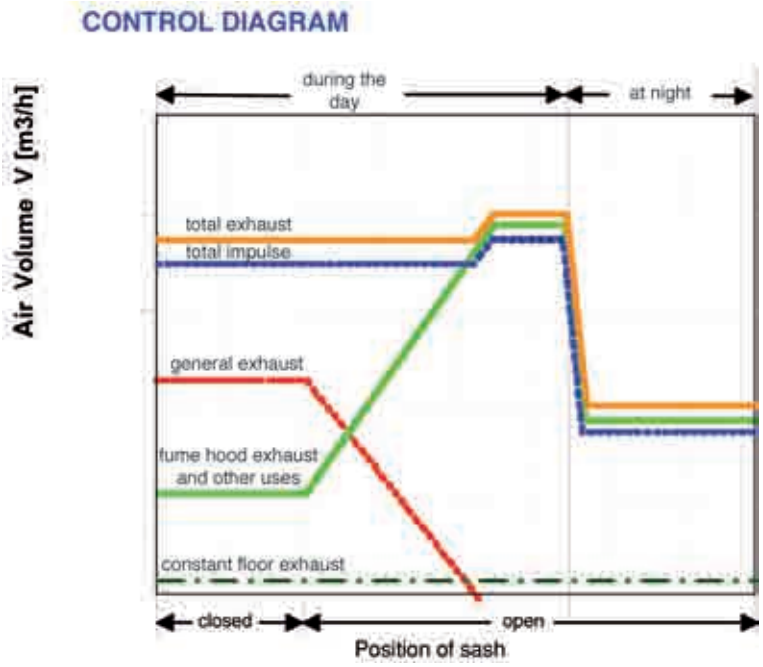
CLIMATE CONTROL AND ENERGY SAVINGS

Taking into account aforementioned requirements, Flores Valles fume hoods are perfectly set up to operate both independently with or without constant airflow, and also as part of a complex climate control and ventilation system for the laboratory or indeed the entire building.

Flores Valles fume hoods are therefore guaranteed to function properly in any of the following operating systems:

1_FUME HOOD SYSTEM WITH CONSTANT AIR FLOW USING INDEPENDENT DUCTING AND FAN

- It is the most appropriate option when there are a small number of fume hoods in the laboratory.
- This independence prevents mixing fumes into the exhaust ducts.
- It is an excellent system for working with large quantities of harmful products.
- This solution has a lower initial cost but a higher consumption of acclimatized air.



2_FUME HOOD SYSTEM WITH VARIABLE AIR FLOW USING SEPARATE DUCTING AND AN INDEPENDENT EXHAUST FAN.

This option is best applied in laboratories which have a small number fume hoods per square meter.

- The independent operation is a positive factor.
- The option of programming an exhaust scheme to suit the work being done can provide the right solution for all circumstances.
- The option of adjusting the exhaust flow rate to the sash opening coefficient provides a certain savings in acclimatized air.
- Each hood has the capability of sending a 0.10-volt signal indicating its exhaust rate to an external climate control system so clean air is brought into the lab room.
- This solution has the highest cost. The investment is recuperated after one to two years, according to the size of the fume hood and assuming it operates five hours a day.

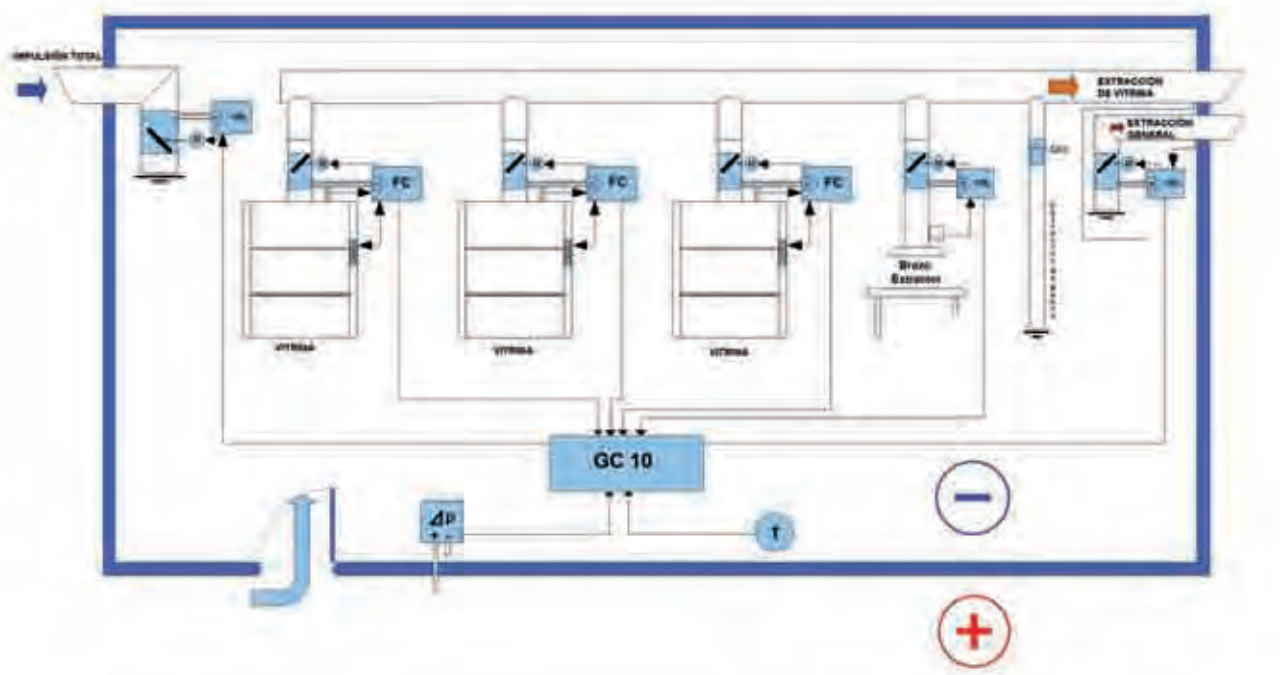
3_INDEPENDENT VENTILATION MANAGEMENT SYSTEM INCORPORATED INTO LABORATORY

When there are a high number of fume hoods in the laboratory, their exhaust systems can be incorporated into the room ventilation by ensuring:

- The fume hoods and exhaust arms are connected to the same conduit.
- Clean air enters the laboratory.
- The air is exhausted from the room.
- The air pressure in the room is controlled.

The fume hood exhaust system forms part of the overall room ventilation management system, thus reducing the number of ducts and fans and simplifying the installation. Nevertheless, the ducts increase in diameter.

The initial exhaust cost is higher, although there is significant savings afterwards.

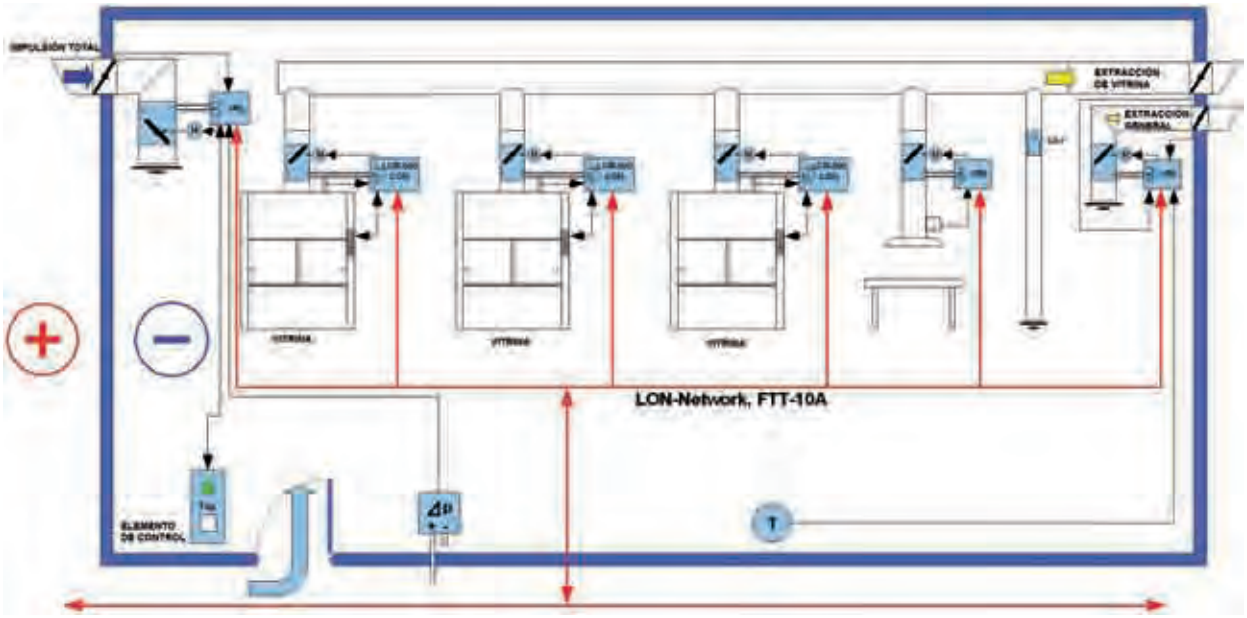


4_FUME HOOD EXHAUST SYSTEM INCORPORATED INTO BUILDING CLIMATE CONTROL SYSTEM.

The full integration of Flores Valles fume hoods into the building's climate control system is possible through a LON communication network.

This system is recommended in large buildings with an integrated climate management system.

It has a slower start-up period and requires specialized personnel in all cases.



FUME HOODS FOR GENERAL USE (VA) ADAPTA PREMIUM

VA fume hoods have been designed in compliance with European standard EN 14175.

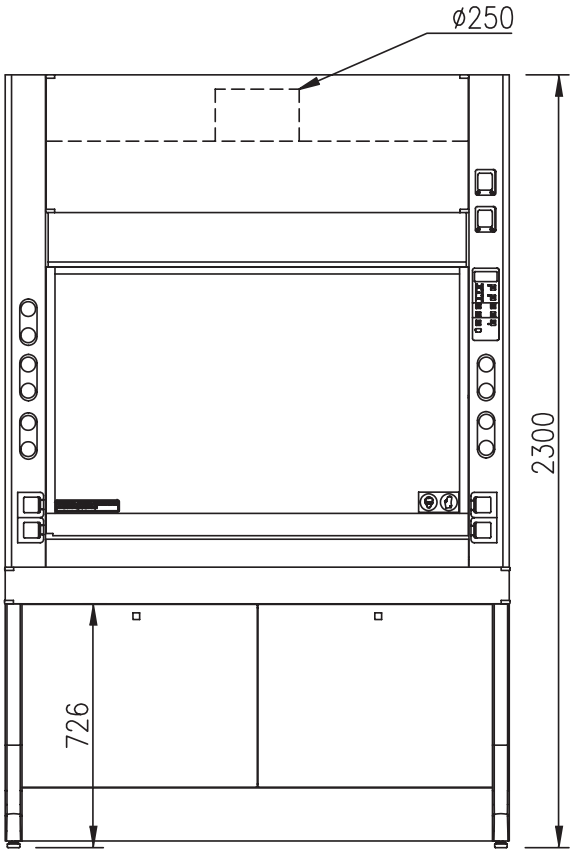
The different sizes, equipment possibilities and the various options for constant and variable airflow operation allow for a completely flexible hood configuration.

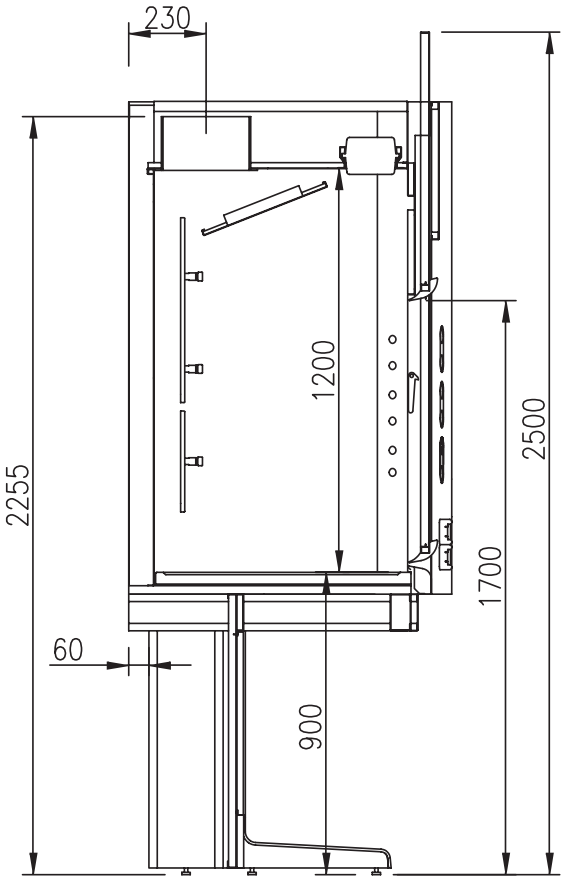
The fire contention capacity is guaranteed on Adiprol® A2 s1 d0 clasification according to UNE EN 13501-1.07. standard.

Easy maneuverability and access plus proper lighting provides a high degree of passive safety.

Its 2.300 mm. height (2.500 mm. with sash completely open) permits installation in rooms with low ceilings.

Includes condensation collect system on the exhaust pipes.





DATA

MODEL	WIDTH (mm.)	HEIGHT (mm.)	DEPHT (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR DEPTH (mm.)	INTERIOR DEPTH (mm.)
VA090810	900	2.500[1]	810	780	1.200	515-605
VA120810	1.200	2.500[1]	810	1.080	1.200	515-605
VA120960	1.200	2.500[1]	960	1.080	1.200	665-755
VA150810	1.500	2.500[1]	810	1.380	1.200	515-605
VA150960	1.500	2.500[1]	960	1.380	1.200	665-755
VA180810	1.800	2.500[1]	810	1.680	1.200	515-605
VA180960	1.800	2.500[1]	960	1.680	1.200	665-755
VA210810	2.100	2.500[1]	810	1.980	1.200	515-605
VA210960	2.100	2.500[1]	960	1.980	1.200	665-755

[1] 2.300 mm. with sash completely closed-top of upper body.

VARIANTS	
Lower body	With frame, standard cabinets, acid cabinets, safety cabinets (exhaust of lower body optional)
Cabin interior	Adiprol®, polyester (only in widths 1200-1500-1800 depth of 960), stainless steel
Work Surface	Ceramic, epoxy resin, granite, polypropylene, stainless steel
Sash	With or without sliding glass
Control panel	Standard and safety control panels
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Scaffolds, exhaust of lower body, filters, variable air volume motorized sash, motion detector, and emergency lighting.

WALK-IN FUME HOODS (SM) WITHOUT WORKTOP

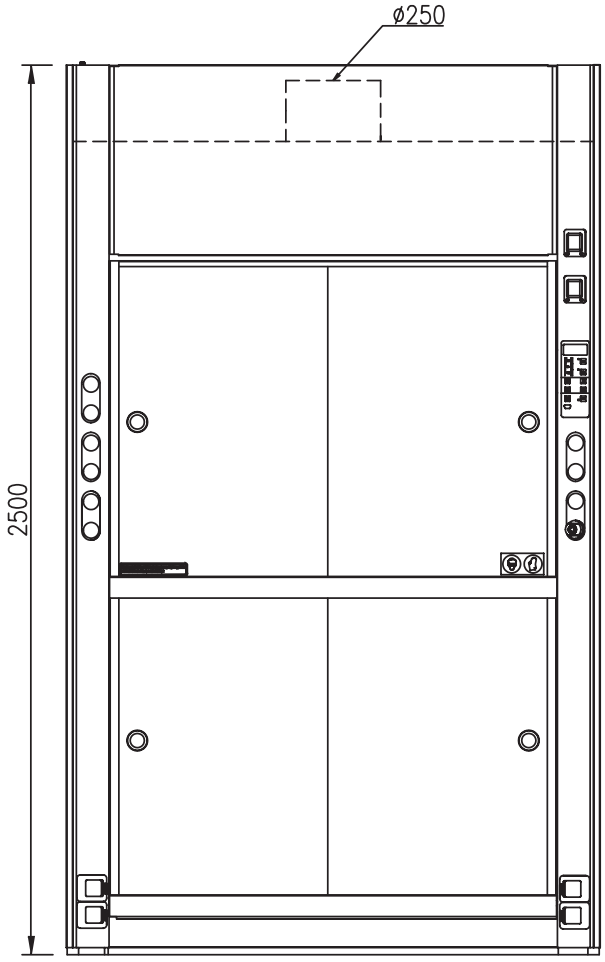
Fume hoods with a work area that reaches down to the floor are most suited to large machinery installations for general uses and chemical engineering applications.

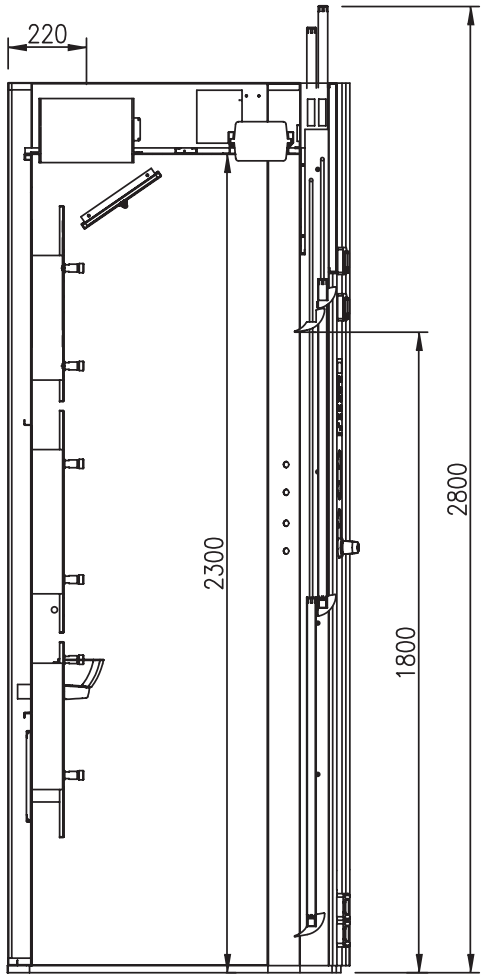
The large interior capacity consists of three width options and an interior height of 2.300 mm.

Easy maneuverability and access plus proper lighting provide a high degree of passive safety, along with the assistance of the alarm systems.

The 2.500 mm. minimum height permits its installation in rooms with height limitations, although they can measure up to 2.800 mm. with the sash completely opened.

Includes condensation collect system on the exhaust pipes.





DATA

MODEL	WIDTH (mm.)	HEIGHT (mm.)	DEPTH (mm.)	INTERIOR WIDTH (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR DEPTH (mm.)
SM150960	1.500	2.800[1]	960	1.380	2.300	665-755
SM180960	1.800	2.800[1]	960	1.680	2.300	665-755
SM210960	2.100	2.800[1]	960	1.980	2.300	665-755

[1] 2.500 mm. with sash completely closed-top of upper body.

VARIANTS	
Cabin Interior	Adiprol® and stainless steel.
Sash	Fixed or sliding glass
Control panel	Standard and safety control
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Scaffolding holder, scaffold, carbon filter, emergency lighting

LARGE ASSEMBLY FUME HOODS WITH LOW WORK SURFACE (SB)

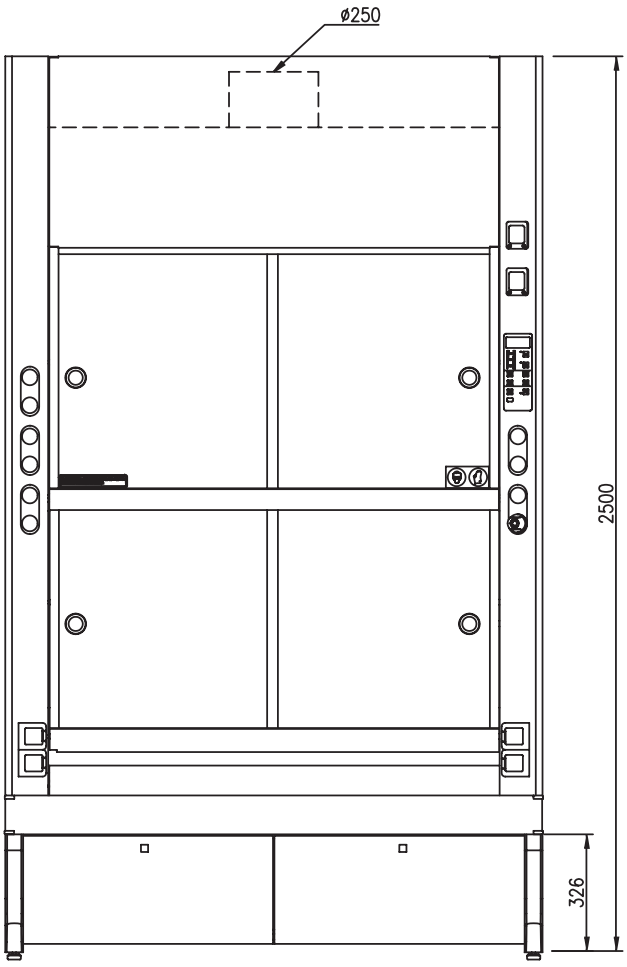
These fume hoods include a continuous work surface set at a height of 500 mm.

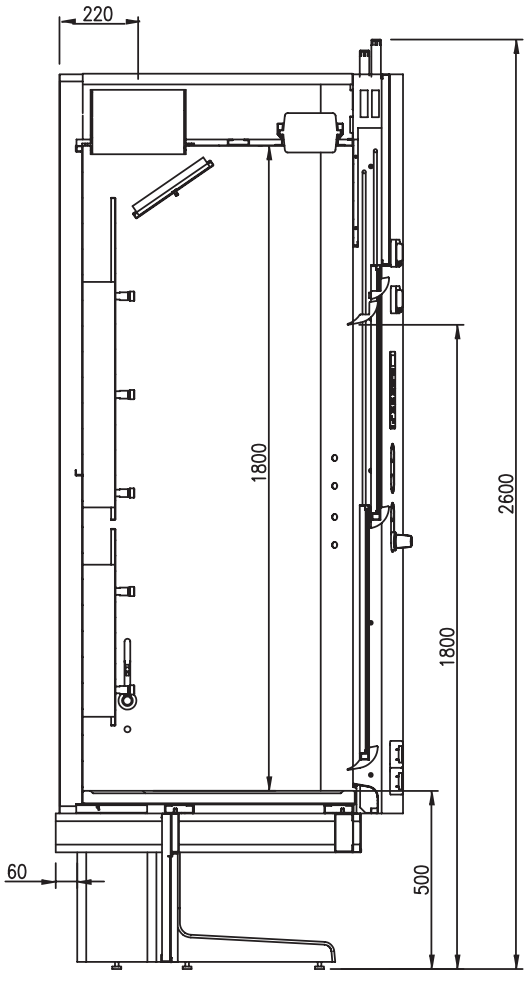
Appropriate for large machinery installations in general laboratory use and chemical engineering applications.

The fire contention capacity is guaranteed thanks to the double cabin wall made of A2 s1 d0 steel and the assistance of the alarm systems.

Easy maneuverability and access plus proper lighting provide a high degree of passive safety.

The 2.500 mm. minimum height permits its installation in rooms with height limitations, while the maximum height is 2.600 mm. with the sash completely open.





DATA

MODEL	WIDTH (mm.)	HEIGHT (mm.)	DEPTH (mm.)	INTERIOR WIDTH (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR HEIGHT (mm.)
SB150960	1.500	2.500[1]	960	1.380	1.800	665-755
SB180960	1.800	2.500[1]	960	1.680	1.800	665-755
SB210960	2.100	2.500[1]	960	1.980	1.800	665-755

[1] 2.300 mm. with sash completely closed-top of upper body.

VARIANTS	
Cabin interior	Adiprol [R] and stainless steel
Work surface	Ceramic, epoxy resin, granite and stainless steel
Sash	With or without sliding glass
Control Panel	Standard and safety panels
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Scaffolding support, scaffold, carbon filters,Emergency lighting.

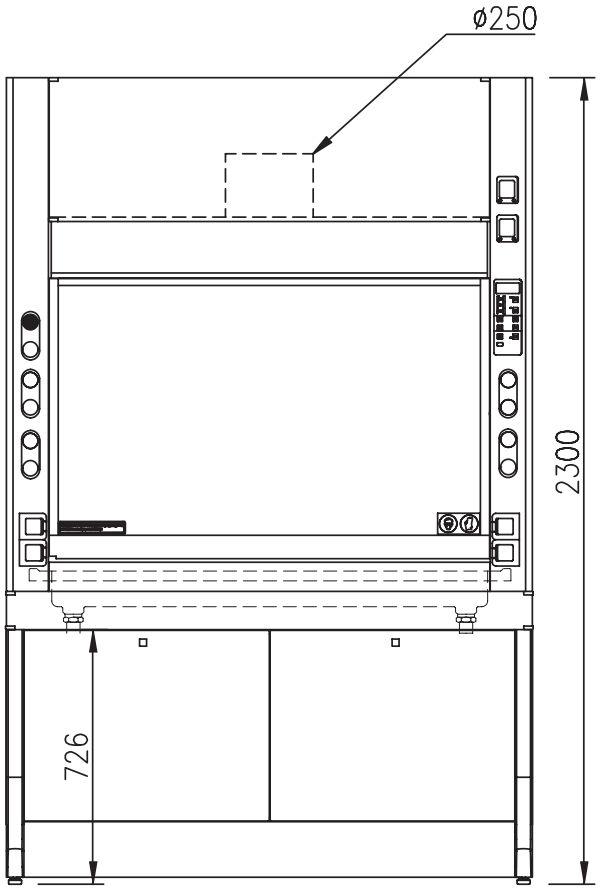
FUME HOODS FOR PERCHLORIC ACID (PC)

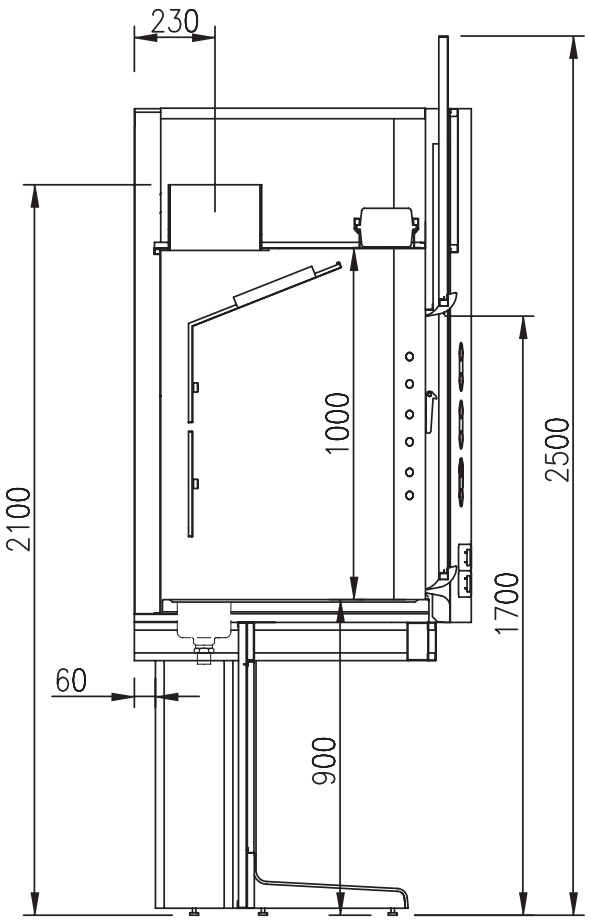
This fume hood is used specifically in laboratories working with perchloric acid.

The cabin interior is made of AISI 316 stainless steel, allowing it to be safely used with perchloric acid.

The scrubber system prevents any acid crystallization from forming inside the fume hood. The work surface has a drain channel for the rinse water.

The overall height can be as low as 2.300 mm., allowing it to be used in rooms with height limitations, while having a maximum height of 2.500 mm.





DATA

MODEL	WIDTH (mm.)	HEIGHT (mm.)	DEPTH (mm.)	INTERIOR WIDTH (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR DEPTH (mm.)
PC150960	1.500	2.500[1]	960	1.380	1.000	665-755
PC180960	1.800	2.500[1]	960	1.680	1.000	665-755
PC210960	2.100	2.500[1]	960	1.980	1.000	665-755

[1] 2.300 mm. with sash completely closed-top op upper body.

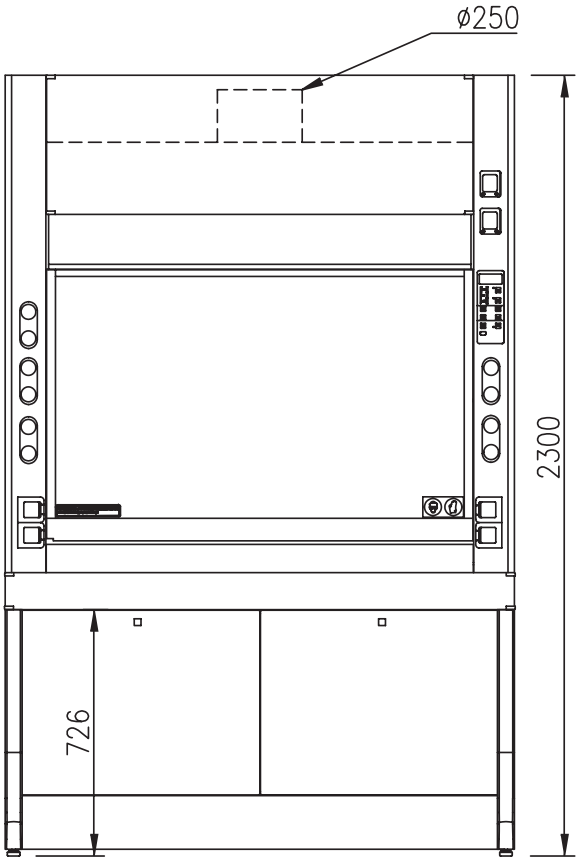
VARIANTS	
Lower body	With frame, standard cabinets, acid cabinets, safety cabinets (exhaust of lower body optional)
Cabin interior	AISI 316 stainless steel with a scrubber system
Work surface	Ceramic and stainless steel
Sash	Fixed or sliding glass
Control panel	Standard and safety control
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Emergency lighting

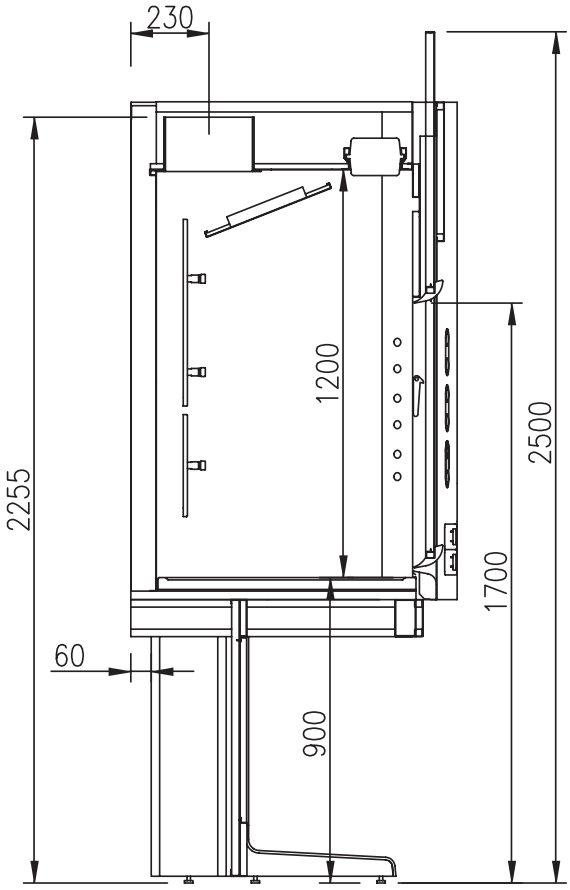
FUME HOODS FOR STRONG ACIDS (AC)

Fume hoods to be used with strong acids have the inside made of polypropylene, providing an excellent chemical resistance.

When using hydrofluoric acid, the sash is made of a single piece of transparent methacrylate.

As a complement to the fume hood, cabinets can be inserted in the lower body to store acids; the interior is finished in polypropylene with extractable drawers for easy access. Exhaust can be provided in the lower body to prevent the concentration of acid vapors.





DATA

MODELS	WIDTH (mm.)	HEIGHT (mm.)	DEPTH (mm.)	INTERIOR WIDTH (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR DEPTH (mm.)
AC150960	1.500	2.500[1]	960	1.380	1.200	665-755
AC180960	1.800	2.500[1]	960	1.680	1.200	665-755
AC210960	2.100	2.500[1]	960	1.980	1.200	665-755

[1] 2.300 mm. with sash completely closed-top op upper body.

VARIANTS	
Lower body	With frame, standard cabinets, acid cabinets, safety cabinets (exhaust of lower body optional)
Cabin interior	Polypropylene
Work Surface	Ceramic, epoxy resin, polypropylene
Sash	With or without sliding glass, with fixed methacrylate panel
Control panel	Standard and safety control panels
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Scaffold holder, scaffold, emergency lighting, panel washes

* especially for hydrofluoric acid

FUME HOODS FOR BETA AND GAMMA RADIOISOTOPES

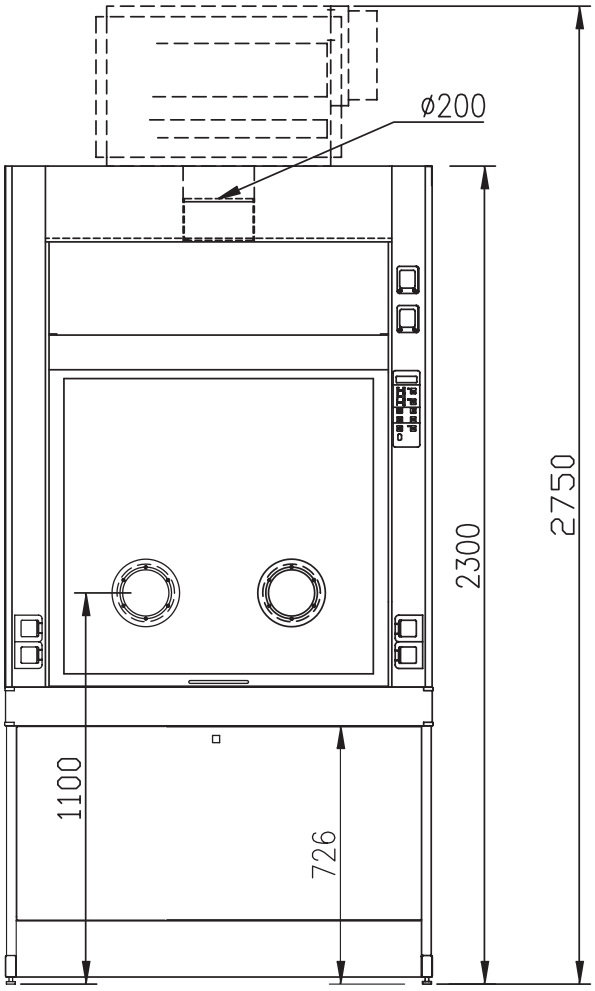
The fume hood for Beta and Gamma radioisotopes consists of a cabin interior which is armored on the sides, back and top panels by 2 mm. lead and 10 mm. polypropylene with all its joints completely soldered.

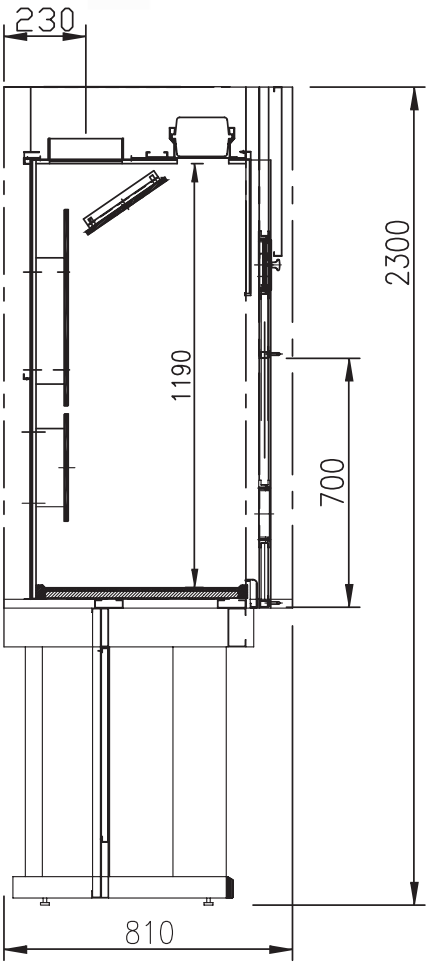
The sash consists of a 10 mm. thick methacrylate interior and RD 50 leaded glass exterior equivalent to 2,2 mm of GMA lead. There are two apertures with methacrylate covers for handling items inside.

Any involuntary openings are prevented by the safety system.

The work surface consists of a 10 mm. thick polypropylene top with a 2 mm. lead coating on the bottom.

All the joints inside the cabin have been soldered to make decontamination easier.





DATA

MODEL	WIDTH (mm.)	HEIGHT (mm.)	DEPTH (mm.)	INTERIOR WIDTH (mm.)	INTERIOR HEIGHT (mm.)	INTERIOR DEPTH (mm.)
RD120810	1.200	2.750[1]	810	960	1.190	500-590

[1] with sash completely open and filters for radioactive isotopes.

VARIANTS	
Lower body	Strengthened with electro-galvanized steel and coated with kiln-dried epoxy
Cabin interior	Walls, back and ceiling plated with 2 mm. sheets of lead and interior with 10 mm. of polypropylene and soldered joints
Work surface	Polypropylene with 2 mm.-thick lead armor-plating on bottom
Sash	Consists of 10 mm. methacrylate interior and leaded glass exterior equivalent to 2,2 mm GMA of lead. There are two circular openings with methacrylate covers to access the interior
Control panel	SG safety
Services	Up to 10 services
Electrical protection	Three-phase and single-phase
Electrical sockets	4 (standard) or 6 units
Options	Filters for radioactive isotopes formed by an active carbon filter and an H14 absolute particle filter, a lead-plated top, emergency lighting, motorized variable air volume


ADaptA

COMPLEMENTARY ITEMS

- EXTRACTION ARMS & ATOMIC ABSORPTION HOODS
- CANOPY HOODS
- REFRIGERATION EQUIPMENT
- REFRIGERATION CHAMBERS
- SCRUBBERS
- SHOWERS AND EYE WASHERS
- STORAGE
- STOOLS AND CHAIRS

EXTRACTION ARMS & ATOMIC ABSORPTION HOODS

ATOMIC ABSORPTION HOOD:

Specially designed to exhaust contaminated and high temperature air that has been generated during the operation of atomic absorption units. All the components which can be in contact with the flames are made of AISI 316 stainless steel.

Designed to be installed in walls and ceiling with a 360º rotation angle and a 440 mm telescopic function.

Hood diameter is 250 mm.

EXTRACTION ARM:

Localized white polypropylene exhaust arm for gases and fumes. Dimensions: 1.300 mm. long x 75 mm. in diameter.

Stainless steel interior mechanisms. Its three joints allow it to be stably set into any position and adjusted. Manual flow adjustment bracket.

The arm can be installed on the wall, the ceiling or the service systems.

CANOPY HOODS

Exhaust hoods for benches or specific areas. These can be manufactured in stainless steel or polypropylene.

• STAINLESS STEEL:

Built of AISI 304 stainless steel with a drip edge to collect condensation all around its perimeter.

The interior is diaphanous for easy cleaning.

• POLYPROPYLENE:

Built with mechanized panels of injected and welded polypropylene, which has a high chemical resistance.

REFRIGERATION EQUIPMENT

As a complement to our furniture line, we include a wide range of cold-storage equipment:

REFRIGERATORS

Uses forced-air circulation to maintain a stable temperature of 4ºC.

Dimensions:

Single: 700 x 890 x 2.080 mm.

Double: 1.400 x 890 x 2.080 mm.

UPRIGHT STORAGE FREEZERS

Stores products which need to be preserved at low temperatures to -35ºC according to the model.

Dimensions: 760 x 700 x 1.990 mm.

FREEZER CHESTS

Used to maintain products to -85º C with a stability of 0,5º C.

Dimensions:

Single: 725 x 655 x 850 mm.

Double: 1.705 x 655 x 850 mm.

REFRIGERATION CHAMBERS

Custom modular construction has the option to build various arrangements. 100-mm. thick panels with a floor of the same thickness.

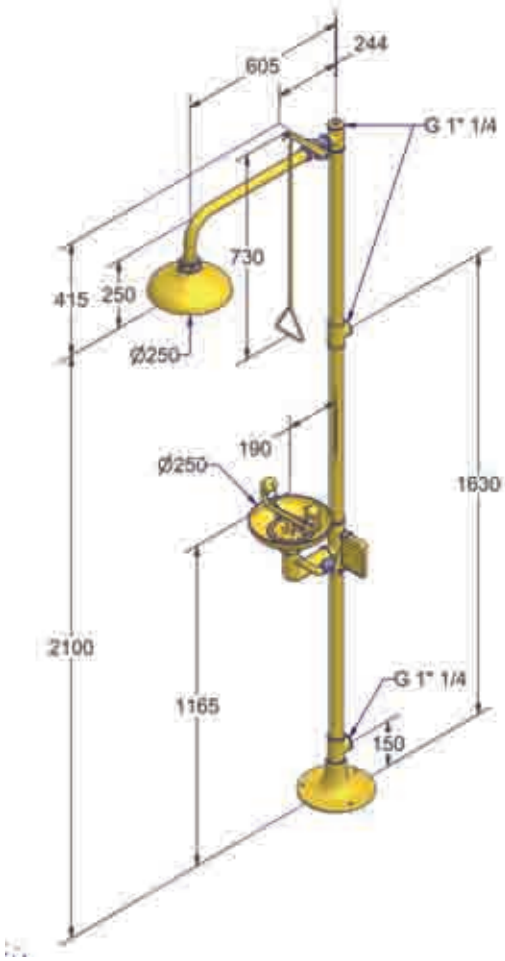
Exterior facing is made of galvanized and lacquered steel panels with internal polyurethane insulation injected at high-pressure to a density of 40 Kg/ m^3.

Pivoting door with lock.

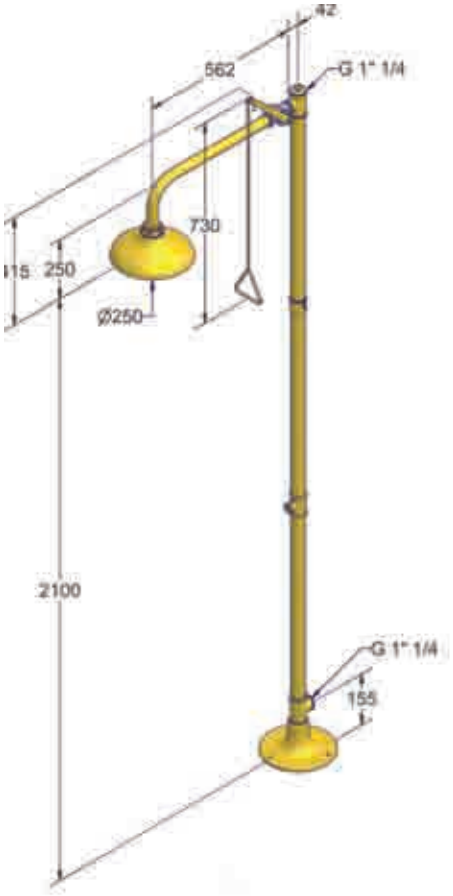
SCRUBBER

The C 1800 Scrubber is designed for fumes hoods 1500 mm. wide. It can be placed next to a fume hood or in another interior or exterior room. The fumes produced inside the fume hood are conducted towards the scrubber where they are washed and neutralized using sprays and rings. The fumes can then be emitted into the atmosphere in compliance with all current standards. For strong acids or ongoing work with acids, the scrubber can be fitted with a dispensing pump to constantly control the Ph level. There are other models for large-sized fume hoods and sets of several fume hoods.

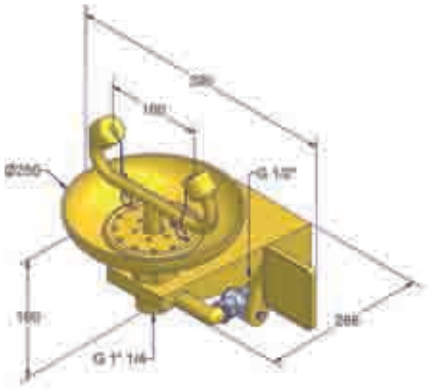
SHOWERS AND EYE WASHERS



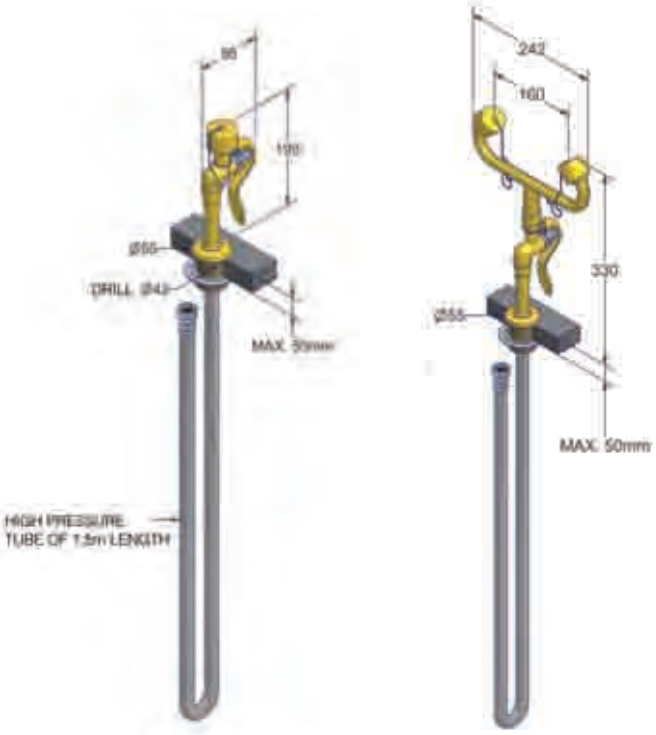
SHOWER / EYE WASHER WITH TWIN HANDLE



EMERGENCY SHOWER ON PEDESTAL



WALL-HUNG EMERGENCY WASHER



COUNTERTOP EYE WASHER

STORAGE

STAINLESS STEEL SHELVING

5 shelves built with 30 x 30 mm. tubing.
Smooth height-adjustable shelves with a 200-kg load capacity.
Shelve joints have reinforced hooks.

METAL SHELVING

6 shelves built of smooth 0.8 mm thick sheet metal. Height-adjustable with a 200-Kg. load capacity.

Shelves held up by grooved supports.

Coated in epoxy-polyester resin.

LOCKERS

Steel lockers, cubbies and closets in a variety of finishes which can be disassembled, fully guaranteeing versatility.

Dimensions:

Standard height: 1.800 mm. (consult for heights from 0 to 2.500 mm.)

Standard depth: 500 mm. (consult for depths from 0 to 600 mm.)

Standard widths: 250, 300, 400 and 500 mm. (consult for other sizes)

STOOLS AND CHAIRS IN POLYPROPYLENE

STOOL WITH POLYURETHANE BACK MOD. G-1008

- Rugged texture and anti-slip exterior coating facilitates immobility.
- Opaque to lend product anticontaminant cash index.
- Hydraulic lifting action.
- Five wheels.
- Foot-rest ring.

STOOL WITH BACK MOD. G-1001

- Swivel action.
- Hydraulic lifting action.
- Five wheels.
- Foot-rest ring.
- Choice of upholstery.

SWIVEL CHAIR MOD. G-101

- Permanent contact with floor.
- Hydraulic lifting action.
- Five wheels.
- Choice of upholstery.

OTHER PRODUCTS

- We have other products available not offered in this catalogue contact us.

Flores Valles
Laboratory Furniture
Fume Hoods
International Division

Isla de Jamaica, 10
28034 Madrid - SPAIN
Tel.: +34 91 761 10 94
Fax: +34 91 761 10 97
export@floresvalles.com
www.floresvalles.com