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LABORATORY FACILITY SYSTEMS 2012

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We furnish your future-proof laboratory

Laboratories in companies, schools, universities and research institutes are subject to stringent legal directives regarding the safety of personnel and environment, as well. Laboratory operators, on the other hand, have prepared their own strict guidelines as to the efficiency and practical suitability of their laboratories. Both these demands must be complied with, and when suppliers are able to prove the sustainability of the furnishings and special equipment, the laboratory is not only efficient but also future-proof.

We have specialised in the development and design of laboratory systems, providing our customers with optimum solutions under full consideration of safety, sustainability and economy, thus ensuring maximum investment security.

The laboratory as a whole is paramount, and we offer a broad range of fume cupboards, laboratory work benches and service modules plus storage facilities and accessories, in other words, the full programme. Aside from standard sizes and arrangements, we also supply dedicated solutions with individual equipment to the very last detail, if so required. Our performance spectrum comprises professional consulting, planning and design, on-time delivery and installation plus competent customer service.

Take advantage or our competence and long-term experience!

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1 Fume cupboards

Good working atmosphere, assured sustainability

Research and industrial laboratories have to comply with many different requirements on functionality, stability, flexibility and safety. Compliance with the requirements as a whole guarantees that you obtain what you need: a good working atmosphere.

Sustainability is a prominent issue also for laboratories, equipment, devices, etc. Our supportive airflow technology is a major contributions towards sustainability in laboratories.

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1 Fume cupboards

Fume cupboards are central components in laboratories, and we have designed a variety of fume cupboard executions to meet different and changing demands which are rising steadily, because of the increasing number of harmful substances and reagents. As a result, a substantial share of laboratory works are performed in protected environments, e.g. fume cupboards. Pertinent legislation has also become more stringent, as is documented in EN 14175.

We provide fume cupboards in standard widths of 1200, 1500, 1800 and 2100 mm, however, we also design custom-tailored solutions. In line with the large application spectrum, we design fume cupboards as benchtop type, low-height fume cupboards, low level fume cupboards and walk-in fume cupboards. Work tops and interior linings are configured commensurate with the associated work details, gases and liquids used, vapours and aerosols.

Test chamber

Our company is a member of the European working group 'test laboratories' and we test and assess our fume cupboards in our own test chambers. Type tests are executed acc. to EN 14175 Part 3 in collaboration with the institute for industrial aerodynamics at the university of applied sciences in Aachen.

Our test facility for aero-technological measuring allows the simulation of a variety of room air situations. Our fume cupboards, therefore, can be perfectly adjusted for a customers specific working environment. Many customers take advantage of the possibility to set-up own test situations for selected fume cupboards in our test chamber in order to define the optimum air volume flow for given conditions.

Monitoring and control

Fume cupboard, air flow monitoring and control systems, room air management and ventilation system are considered as an interactive system. There must be an overall governing concept to optimally setup the interface parameters. This highly effective concept is a must for the safe and efficient use of fume cupboards.

In compliance with the aero-technological overall concept we furnish our fume cupboards with air flow controls acc. to EN 14175 Part 2 or with a constant or variable volume control system (VAV). Options include the implementation of automatically closing front sash. Combined with a front sash-related variable volume control system, the necessary exhaust air volume can be drastically reduced.

Fume cupboard with Fire Extinguishing System (FES)

FES fume cupboards feature a safety system for fire prevention.

This fume cupboards feature an automated fire prevention system, thus allowing for 24-hour or unattended operation. The combination of fume cupboard and fire extinguishing system provides for round-the-clock safety. The FES system includes a compressed gas generator, thermal and/or optical (UV) fire detector, control devices, optical and acoustic warning devices as well as a pushbutton for manual execution.

In case of a fire the front sash, the exhaust damper and the media supply are shut-off, the compressed gas generator is started, argon gas is released via the distribution rail to flood and immediately extinguish the fire. At the same time, acoustic and optical warning signals are triggered, and information is passed on to the in-house building management system and to the fire-brigade.

Special fume cupboards to DIN 12924, Part 2

Open dissociation processes are executed in special fume cupboards to DIN 12924, Part 2. These fume cupboards feature internal ceramic or polypropylene lining with main exhaust duct. These fume cupboards are used when working with aggressive media such as sulfuric acid, perchloric acid, hydrofluoric acid or aqua regia.

Fume cupboards can additionally be fitted with a gas scrubber to preclude harmful gases of being dissipated into the atmosphere. The absorption arrangement operates in a fully automatic mode. Filling and replenishing of the scrubbing fluid is controlled via a fluid level monitor. The electrical conductivity of the fluid is continuously monitored. The system can be augmented by installing a waste water neutralisation unit in the base cabinet for neutralising acidic or alkaline waste waters.

Radio-isotope and filter fume cupboards to DIN 25466

Fume cupboards for radio-isotopes are designed to DIN 25466 in full consideration of increased demands for radiation protection. Interior lining and work top are stainless-steel or polypropylene. The upper section of the cupboard holds a two-stage filter unit (pre-filter, particle filter). Quadruple filtering – pre-filter, particle filter, carbon and abraded matter filter – can be provided by adding a laterally mounted element.

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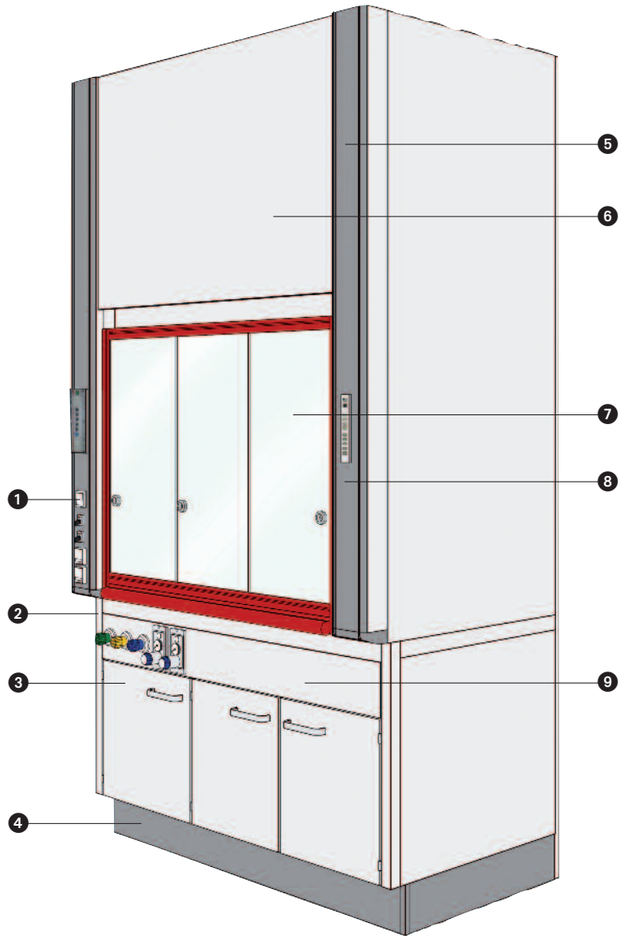
A | Bench-mounted fume cupboards to EN 14175

Fume cupboards, through specific design features and air ducts, shall – acc. to the definition of their purpose – prevent gases, fumes or suspended matters from escaping into the laboratory. Further to this, they shall prevent the creation of a dangerous explosive atmosphere, and the closed front sash shall protect laboratory personnel against harmful spraying media or flying debris or glass splinters. Our proven designs comply with all these demands for maximum safety in the laboratory.

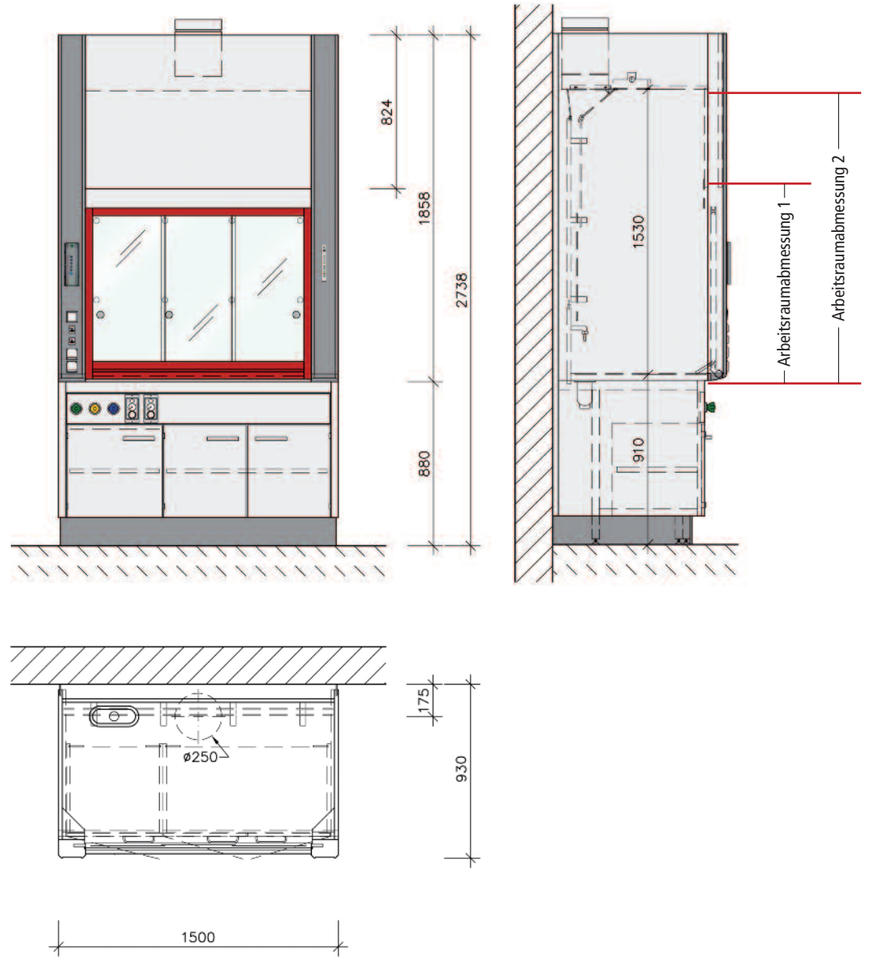
The standard fume cupboard features melamine interior lining, ceramic work top, scuffold holders and lighting. Installation of electric sockets and charging with the respective media (water, gases, pure gases) as required. Base cabinets can be arranged as needed.



Legend

1. Electric devices
2. Steel frame
3. Cabinet with plinth
4. Plinth panel
5. Pylons
6. Front panel
7. Front sash (combination sash)
8. Air flow control
9. Fittings installation panel

Measurements



Interior lining

melamine
polypropylene
stainless steel
stoneware
solid grade laminate

Technical data

Width	1200	1500	1800	2100
External dimensions	1200 x 930 x 2738	1500 x 930 x 2738	1800 x 930 x 2738	2100 x 930 x 2738
Internal workspace 1	1160 x 740 x 1050	1460 x 740 x 1050	1760 x 740 x 1050	2060 x 740 x 1050
Internal workspace 2	1160 x 740 x 1530	1460 x 740 x 1530	1760 x 740 x 1530	2060 x 740 x 1530
Exhaust volumetric flow (m^3/h)	400	530	660	790
Exhaust volumetric flow with supportive air flow technology (m^3/h)	350	450	560	680

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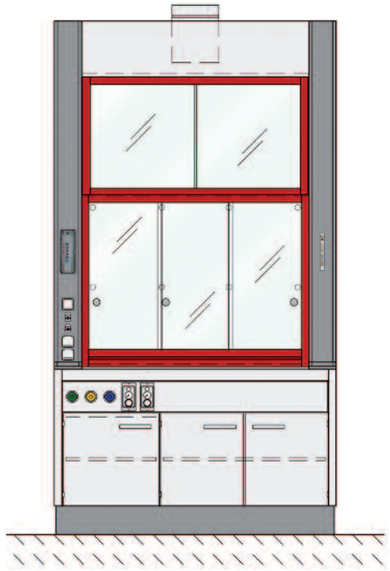
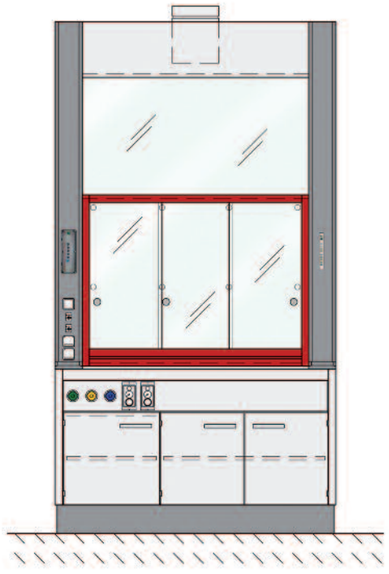
A | Bench-mounted fume cupboards – Variants



When arranging a tall test set-up, a good view into the upper part of a fume cupboard is very practical. This variant, therefore, has two laterally sliding windows instead of a solid front panel, and personnel can easily reach also into the upper part of the fume cupboard.



Where good view is important, however, without the need to reach into the upper part, the priceworthy variant with fixed upper front glazing is the economic solution.

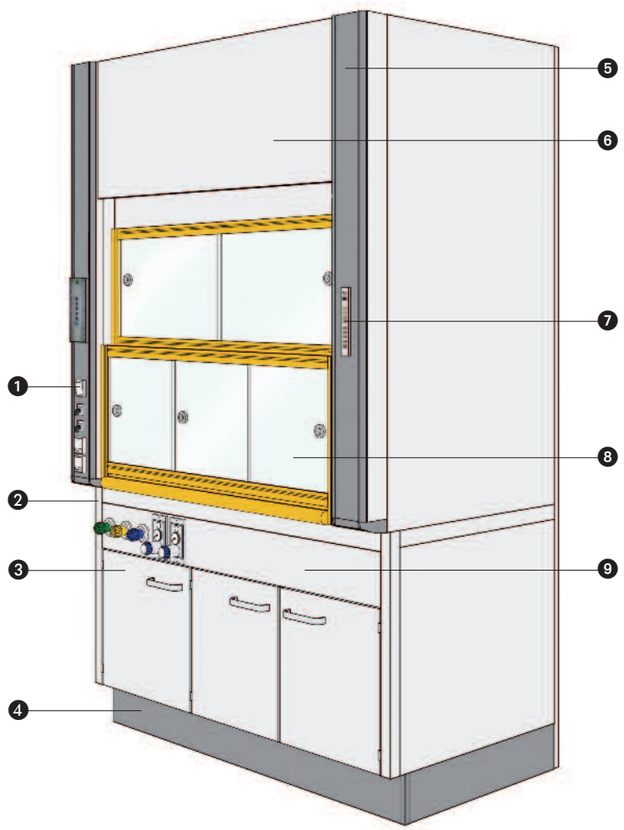
1

B | Fume cupboards for low rooms to EN 14175

Laboratories generally provide clear heights of at least 3 m. In all these situations, standard fume cupboards with structural heights of 2738 mm can be installed. In rooms with ceilings lower than 3 m, fume cupboards for low rooms must be used.

Owing to a separated front sash (twin-sash), which does not extend beyond the fume cupboard structural height, the fume cupboard for low rooms have a height of 2400 mm.

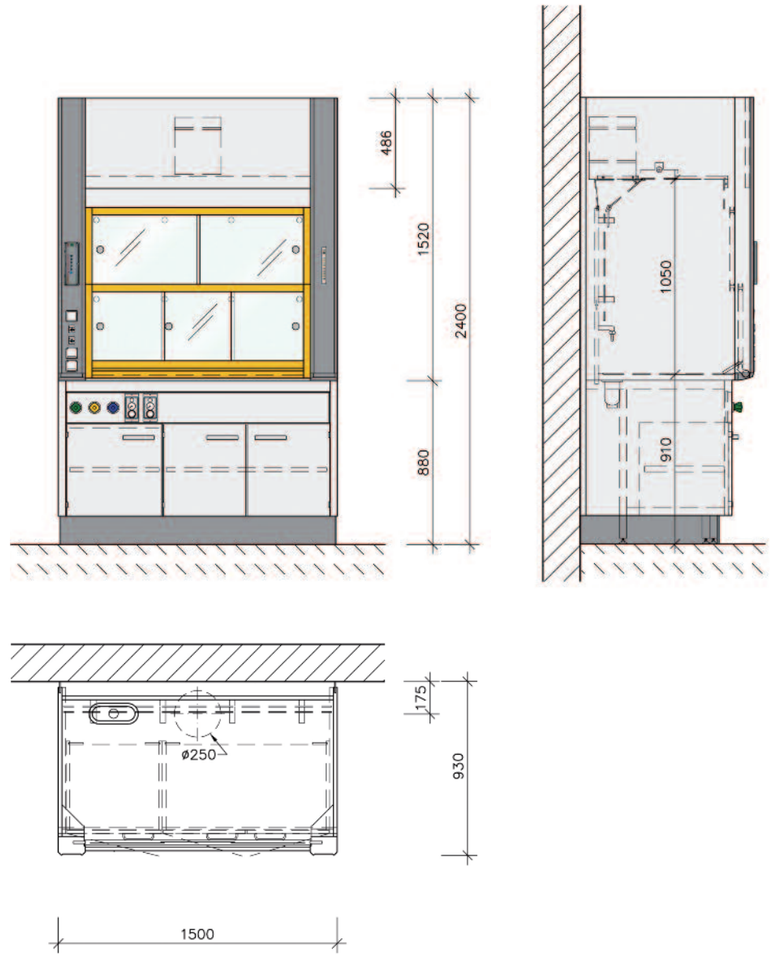
Side walls at all fume cupboards can be fitted with pendulum flaps to permit the introduction of cables, leads or pipework into the fume cupboard.



Legend

1. Electric devices
2. Steel frame
3. Cabinet with plinth
4. Plinth panel
5. Pylons
6. Front panel
7. Air flow control
8. Front sash (combination sash)
9. Fittings installation panel

Measurements



Interior lining

melamine
polypropylene
stainless steel
stoneware
solid grade laminate

Technical data

Width	1200	1500	1800	2100
External dimensions	1200 x 930 x 2400	1500 x 930 x 2400	1800 x 930 x 2400	2100 x 930 x 2400
Internal workspace	1160 x 740 x 1050	1460 x 740 x 1050	1760 x 740 x 1050	2060 x 740 x 1050
Exhaust volumetric flow (m^3/h)	400	530	660	790
Exhaust volumetric flow with supportive air flow technology (m^3/h)	350	450	560	680

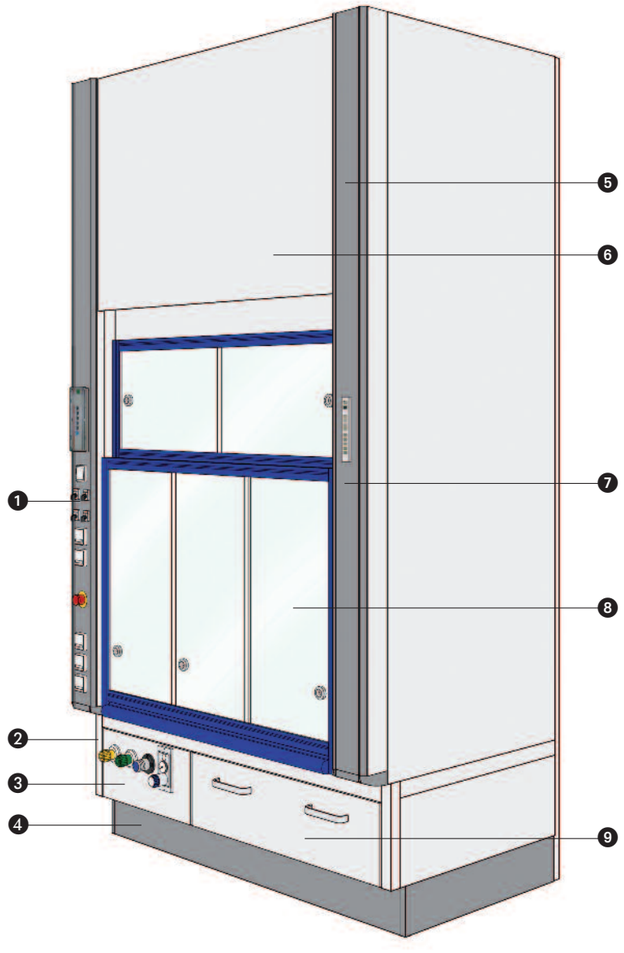
1

C I Low-level fume cupboards to EN 14175

High-rising test set-ups require special fume cupboard designs. Worktops in low-level fume cupboards, therefore, are mounted at a height of 500 mm. This provides for a clear interior height of 1940 mm. For this fume cupboard type the front sash has two elements.

For bench-mounted fume cupboards and low-level fume cupboards a sturdy steel frame is the load-bearing element for the fume cupboard superstructure.

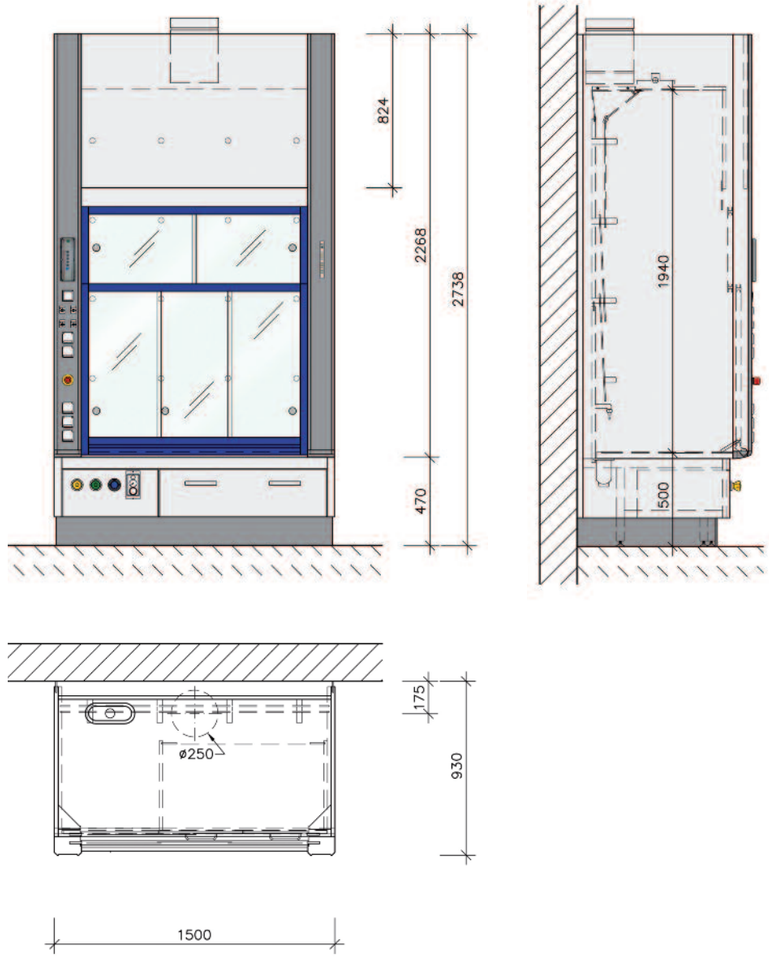
All fume cupboards can also be fitted with composite safety glazing in the side walls to allow for optimum view into the fume cupboard chamber.



Legend

1. Electric devices
2. Steel frame
3. Fittings installation panel
4. Plinth panel
5. Pylons
6. Front panel
7. Air flow control
8. Front sash (combination sash)
9. Cabinet with plinth

Measurements



Interior lining

melamine
polypropylene
stainless steel
stoneware
solid grade laminate

Technical data

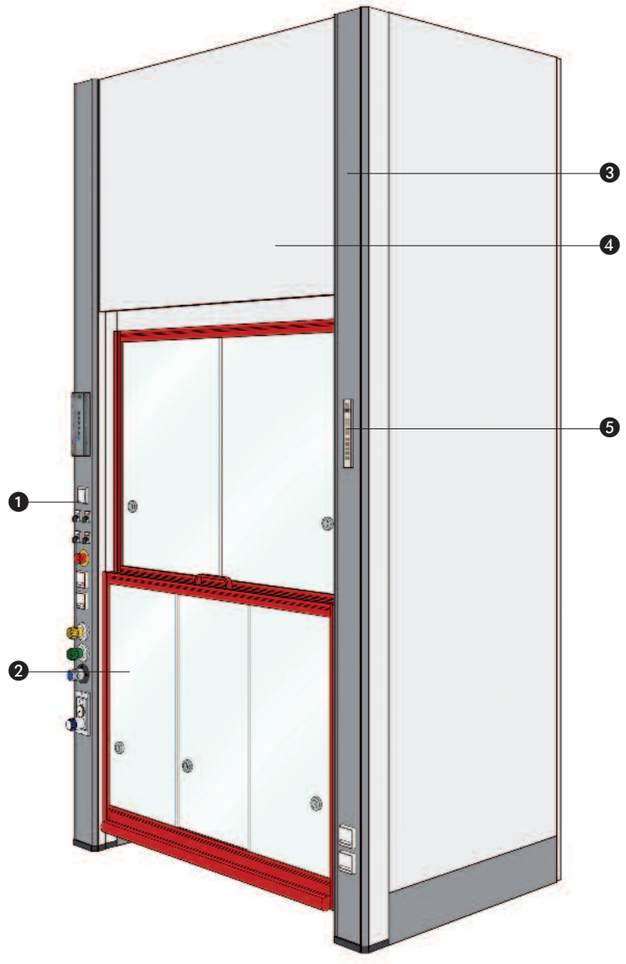
Width	1200	1500	1800	2100
External dimensions	1200 x 930 x 2738	1500 x 930 x 2738	1800 x 930 x 2738	2100 x 930 x 2738
Internal workspace	1160 x 740 x 1940	1460 x 740 x 1940	1760 x 740 x 1940	2060 x 740 x 1940
Exhaust volumetric flow (m^3/h)	500	630	760	890
Exhaust volumetric flow with supportive air flow technology (m^3/h)	450	550	660	780

1

D I Walk-in fume cupboards to EN 14175

When test set-ups are prepared on trolleys to be moved into the fume cupboard, walk-in fume cupboards are required. The interior clear height of 2400 mm allows for tall test set-ups.

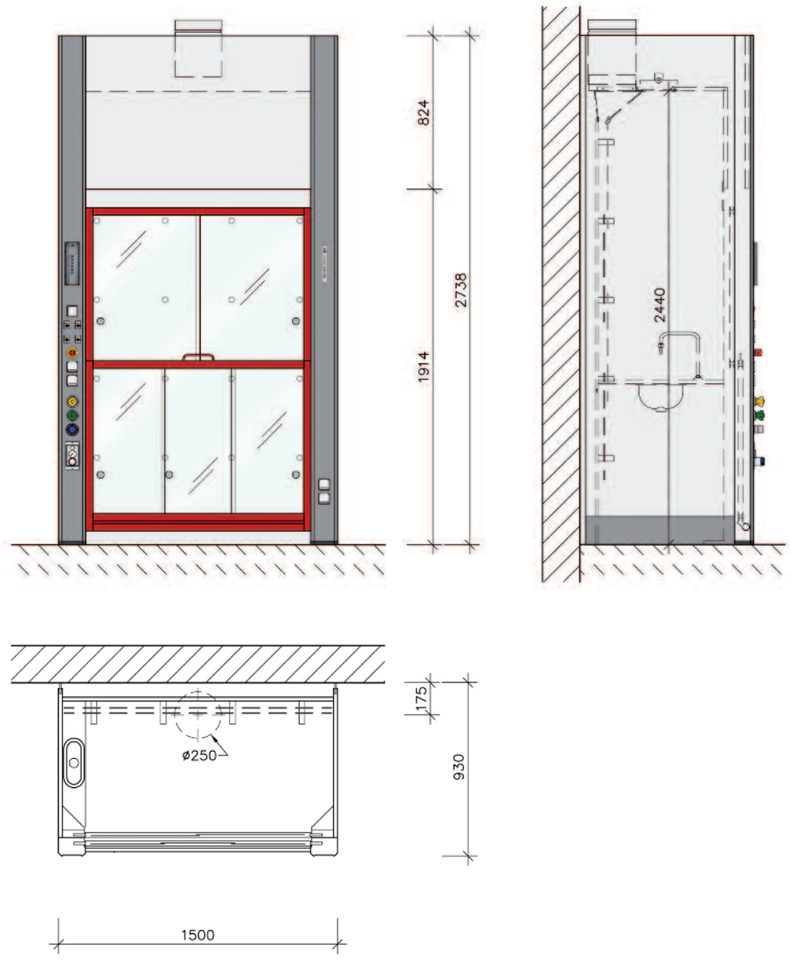
The sink is placed into a lateral board, and taps and fittings are at the side wall. Electric energy is supplied via pylons and can realised at both sides. As with all other fume cupboard models, electrical socket outlets can also be installed inside the cupboards.



Legend

1. Electric devices
2. Front sash (combination sash)
3. Pylons
4. Front panel
5. Air flow control

Measurements



Interior lining

melamine
polypropylene
stainless steel
stoneware
solid grade laminate

Technical data

Width	1200	1500	1800	2100
External dimensions	1200 x 930 x 2738	1500 x 930 x 2738	1800 x 930 x 2738	2100 x 930 x 2738
Internal workspace	1160 x 740 x 2400	1460 x 740 x 2400	1760 x 740 x 2400	2060 x 740 x 2400
Exhaust volumetric flow (m^3/h)	600	730	860	990

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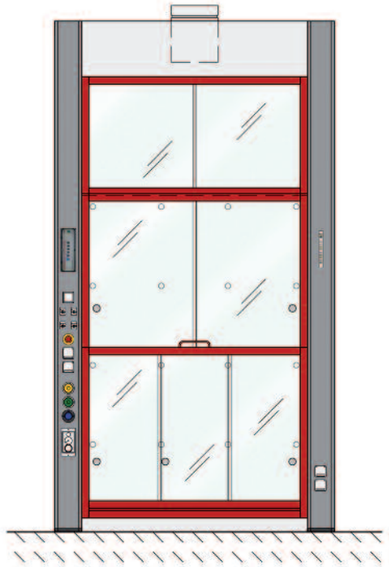
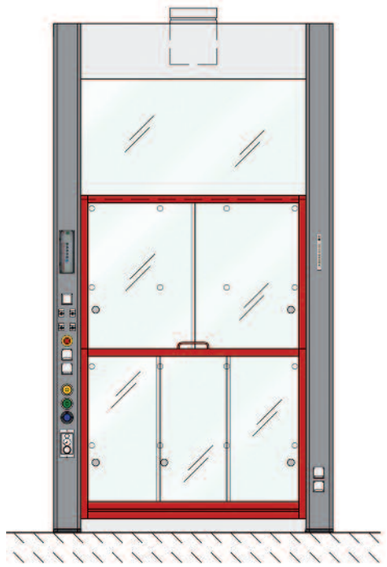
D I Walk-in fume cupboards – Variants



Good view into the fume cupboard chamber is important, particularly when working with tall test set-ups. This variant, therefore, has two laterally sliding windows instead of a solid front panel, and personnel can easily reach also into the upper part of the fume cupboard.



Where good view is important, however, without the need to reach into the upper part, the priceworthy variant with fixed upper front glazing is the economic solution.

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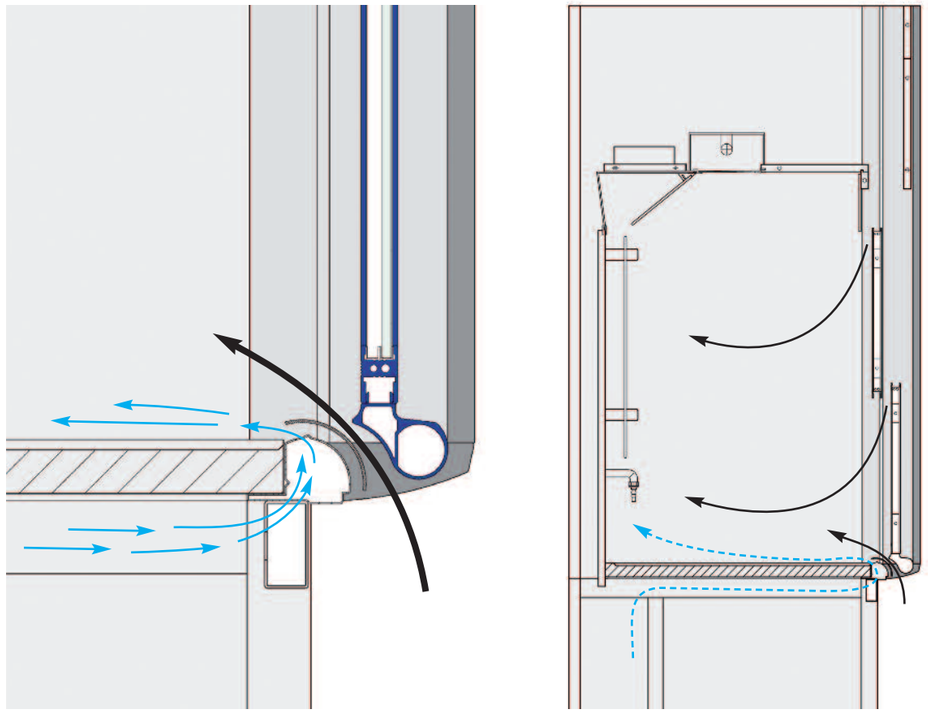
E I Supportive air flow technology

On the one hand, our fume cupboards with supportive air flow technology support the need for sustainability, and on the other hand, they ensure higher safety for laboratory personnel.

This advanced air management provides better protection for laboratory personnel as a supportive air flow profile at the front of the work top optimises the air exchange inside the fume cupboard and increases the fume cupboard robustness.

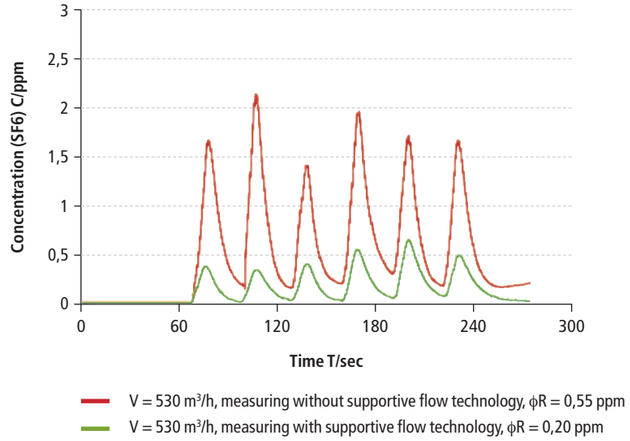
In addition, the exhaust air volume can be reduced, which in turn reduces operating cost while increasing the sustainability of the laboratory itself. Just like all our fume cupboards, these with supportive air flow technology are also measured, assessed and type tested in our own test chamber.

Flow detail

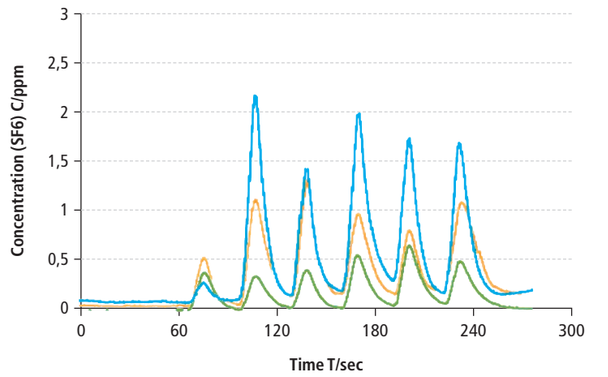


Measuring diagram of containment robustness acc. to EN 14175 for bench-mounted fume cupboard 1.500 mm

Exhaust volumeric airflow 530 m³/h



Exhaust volumeric airflow 400 m³/h, 460 m³/h, 530 m³/h



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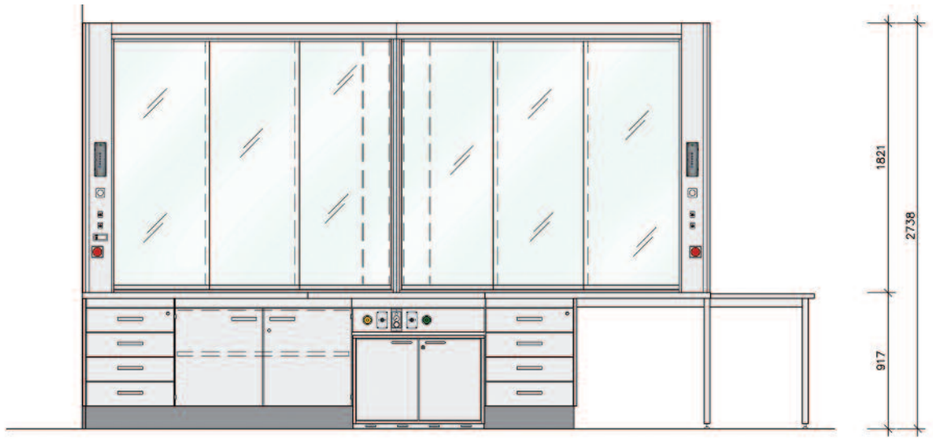
F I Enclosures

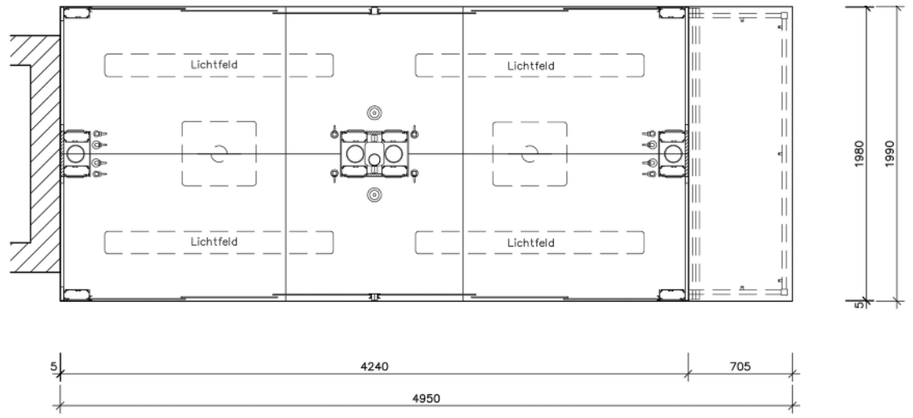
Enclosures are used to protect laboratory personnel from harmful media jets and flying splinters originating from explosions. These enclosures are generally designed as custom-tailored units to best cope with pertinent work processes. Enclosures are placed onto the laboratory tables, and they are fitted with horizontal sliding windows or lateral sliding elements.

Enclosures can also be furnished with individual lighting, and they can be conneced to an exhaust system. Enclosures are prepared for an air exchange 100 x per hour.

Process media are entered either via a fixed rear wall or via integrated media channels.

Measurements



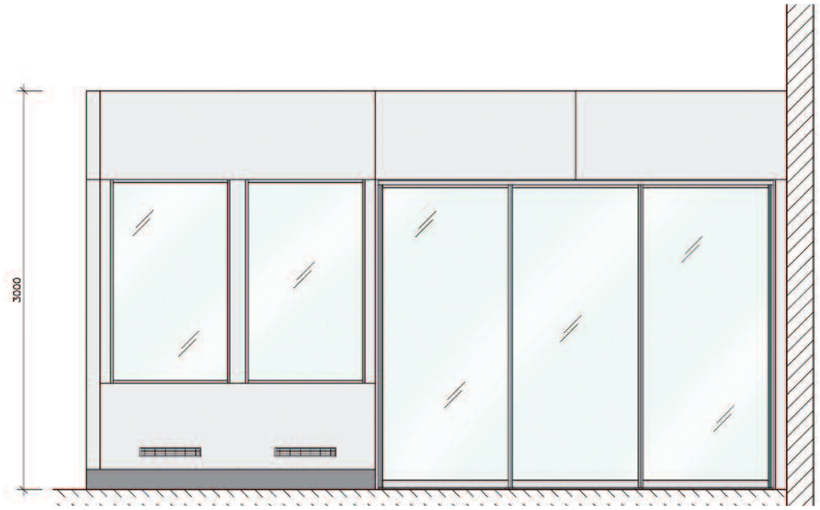


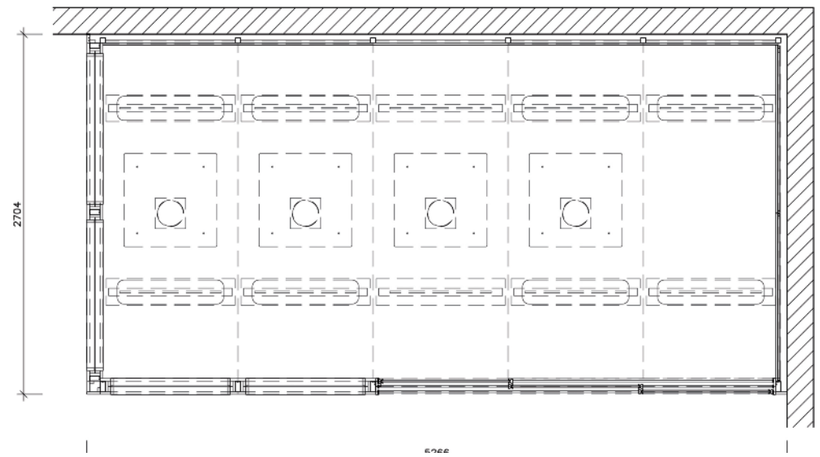
G I XXL-Special cabins

XXL-cabins are voluminous cabins for larger test set-ups. These cabins are available for placing at a wall or as free-standing units. This type of cabin is accessible from all sides via horizontally sliding glazed doors or vertical sashes. Energy supply is realised via integrated media wing or media channels (for wall-standing unit). Type and number of process media depend on the operational spectrum.

Cabin air is extracted via air manifolds in the ceiling, and special exhaust air openings with grid at the base. Depending on the size of the cabin, several exhaust air manifolds will be provided. XXL-cabins generally executed with their own lighting arrangement.

Measurements





2 Workbenches

Laboratory workbenches – expansible, changable, unmistakable

Laboratory workbenches serve as work platforms and supports for equipment in industrial laboratories as such, and for practical applications, as well as in research and quality control, in micro-biology or for wet chemical processes. And each laboratory workbench is unique, indeed, owing to the wide variety of possible media, the type of worktop, base cabinets or storage facilities.

The logical separation of media supply and furniture yield to easy changes with new demands or priorities in a laboratory through expansion or re-arrangement. As a result, laboratory personnel can be provided with optimum working conditions for any tasks.

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F | Worktop material 46

2 Workbenches

The service spine is the floor-mounted supply module for the various operating media. It provides taps and fittings, pure gas valves for diverse types of media to both sides. It holds the electric conduits with circuit breakers, socket outlets, emergency-OFF buttons as well as supply and discharge pipes for the various process media, and it can be fitted with a selection of shelves and storage systems.

The service spine can be combined with a variety of base cabinets, mobile trolleys and worktops thus creating wall laboratory benches and island benches as required for the planned laboratory processes. System supports at the service spine can be vertically extended to fit hanging cabinets.

Electrical conduits

Electrical conduits at the laboratory benches are made from aluminium profiles with a solid phenolic resin panel for the installation of socket outlets, switches, control buttons, distributor sections, control and monitoring instruments. The conduit features partitions to separate high voltage lines, control cables and data lines. With a height of 173 mm, the conduit allows for ample placing of power and communication lines. It is splash water-proof to IP 54 and it complies with pertinent VDE directives. The interface to the local electric circuits are the conduit's integrated terminals.

Valves and fittings

Fittings for water, flammable gases and technical gases are made of brass with polyamide ergonomic handles and standard symbols for the respective medium. Colour coding to EN 13792. Water mixer taps are also available with leveraction valves or as touch-free solutions. Copper, stainless steel or composite pipes are used as appropriate. Thermoplastic taps are used for distilled water, with pipework made from polypropylene. Depending on local conditions, wall mount fittings, benchtop mounted or suspended fittings are used. All taps and fittings comply with DVGW directives (German gas and water industry association).

Brass or stainless-steel fittings are available for purity criteria 6.0. Fitting execution as per requirement with diaphragm shut-off valve. Pressure reducer with manometer and diaphragm dosing valve are fitted with a clamp ring screwing. Pipework is realised with especially cleaned copper or stainless steel pipes.

The local shut-off valve is the interface to the house supply system.

Sink units

Sink units are integral components of any laboratory installation. They are placed at a wall or incorporated in laboratory workbenches. In many cases, users select sink units at the front of laboratory island benches.

Sinktops and sinks are made from either ceramics, polypropylene or stainless-steel. Sinktops and sinks are available in various sizes and dimensions. Taps normally are benchtop mounted fittings. Sinks can also be fitted with emergency eye wash fittings, a standard requirement for laboratories.

Sinks are installed either as drop-in or undermount version.

Seamless sink modules meet maximum hygiene standards, and they are easy to clean. These sinks are also placed lightly higher for better ergonomics and for fatigue-free working.

Connections are located in the associated base cabinet which also houses the necessary waste collecting units.

Balance tables

Balance tables are used for the placing of highly sensitive analysis scales and other precision measuring devices. The tables feature a vibration-absorbing steel frame and a marble plate with damping unit integrated in the melamine resin table top. This solution prevents vibrations from within the room or building or inadvertent knocking at the table to affect the weighing process.

Add-on tables and trolley tables

Add-on tables come with a sturdy, welded H-type frame made from square steel pipes. The tables are available in different sizes. Table tops are from melamine resin, ceramic tiles, ceramics, polypropylene, stainless-steel or solid wood, and raised edges are also part or the programme.

Trolley tables with an additional lower shelf run on four dual casters, two of which can be locked. These sturdy tables can be subjected to loads of 200 kg/m^2. Where higher loads are required, heavy-duty casters will be used.

Base cabinets for laboratory benches

Base cabinets come in three variants:

Cabinets with plinth base: The cabinet supports the worktop. It is placed adjacent to the service spine to create a wall-, or island bench.

Cabinets on castors: They are primarily used at window-side work tables where they are pushed into the C-frames or H-frames.

Suspended base cabinets: These cabinets are mounted in C-frame table stands and provide extra foot room.

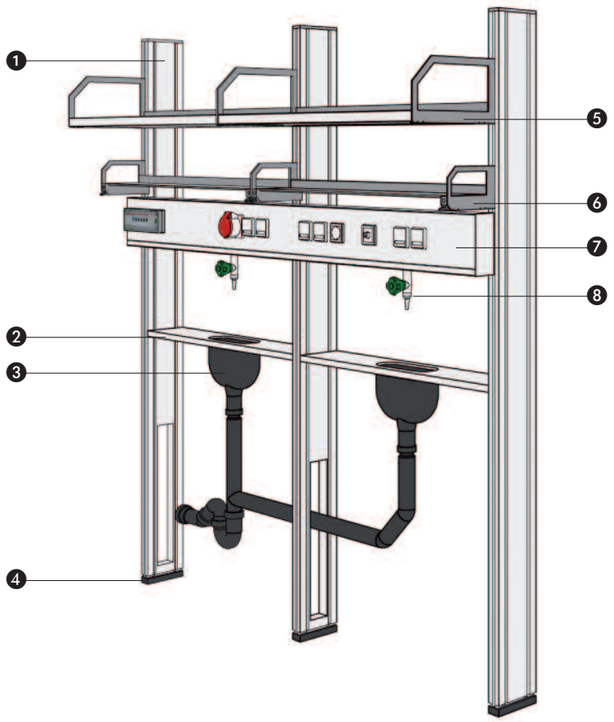
2

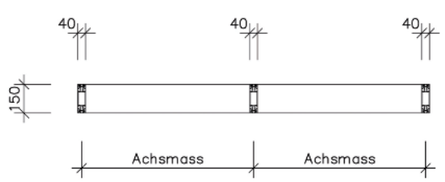
A I Service spine

When combined, service spine and laboratory bench are used as wallbench or island bench.
By the same token, the service spine serves as the supply module with all valves and fittings plus the necessary supply and discharge lines and the associated electrical devices in the electric conduit.
The service spine comprises two system supports with adjustment feets, a sink and fitting installation panel with integrated drip-cup, a splash guard, reagent and system shelves.

System supports

System supports are made from sturdy extruded aluminium profiles and height grids for the mounting of shelves, suspended cabinets, consoles or other accessories.





Legend

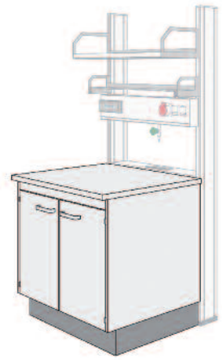
1. System support
2. Sink and fitting installation panel
3. Drip cup
4. Adjustment feet
5. System shelf
6. Reagent shelf
7. Electrical conduit
8. Taps / fittings

Laboratory bench

Laboratory bench and service spine, in combination, are typical wall or island laboratory benches providing a choice of three variants:

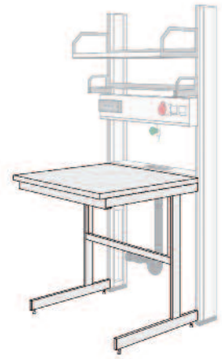
Cabinets with plinth and worktop

The base cabinet supports the worktop. Both base cabinets and worktops are available in different executions.



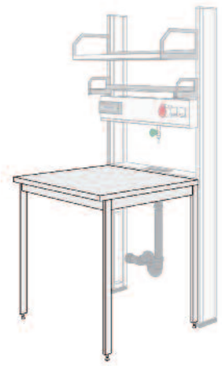
Add-on tables with C-frame

Here, base cabinets can be suspended, and cabinets on castors will fit into the frame.



Add-on tables with H-type frame

Various worktops can be selected. Cabinets on castors will fit into the frame.



Technical data

System support height:	**1970 mm**
Width:	**600 mm / 900 mm / 1200 mm / 1500 mm**
Working height:	**743 mm** (sitting working height) / **910 mm** (standing working height)
Working depth:	**600 mm / 750 mm / 900 mm**

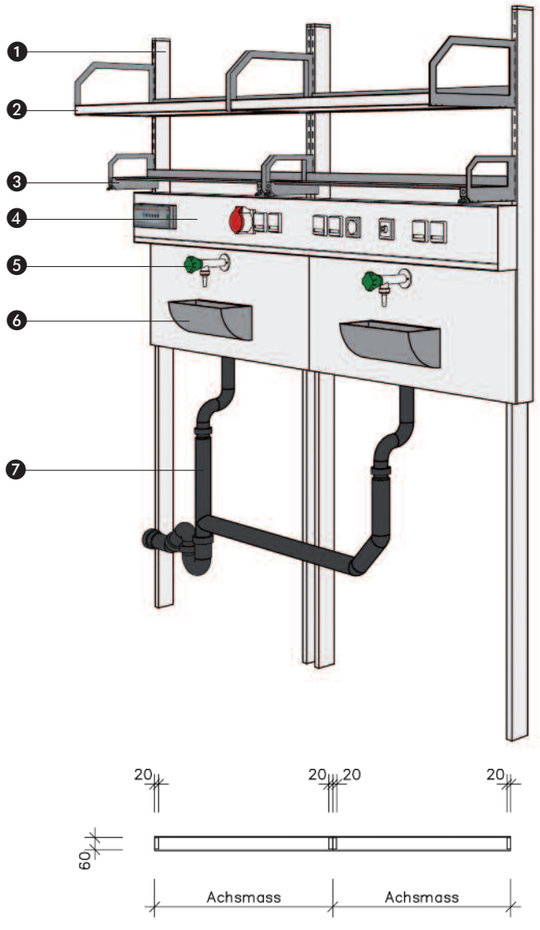
2

A | Service spine in modular design

Where laboratory planning is centred on modular design of 600, 900, 1200 or 1500 mm, the realisation is possible using a new, especially developed service spine. Contrary to the add-on system, each service spine unit has two vertical stands. They constitute a steel profile 60 x 20 mm with 35 mm heigh slots, serving as the supporting element for system shelves, reagent shelves and other add-on furniture or equipment.

The discharge cup sink is mounted to the service panel at the service spine, thereby isolating the service spine with the furniture as such.

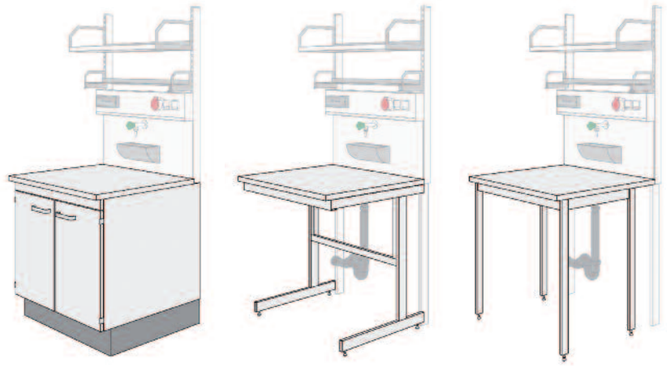
Function stand



Legend

1. Function stand
2. System shelf
3. Reagent shelf
4. Electrical conduit
5. Taps / fittings
6. Discharge cup sink
7. Drainage pipework

Laboratory bench



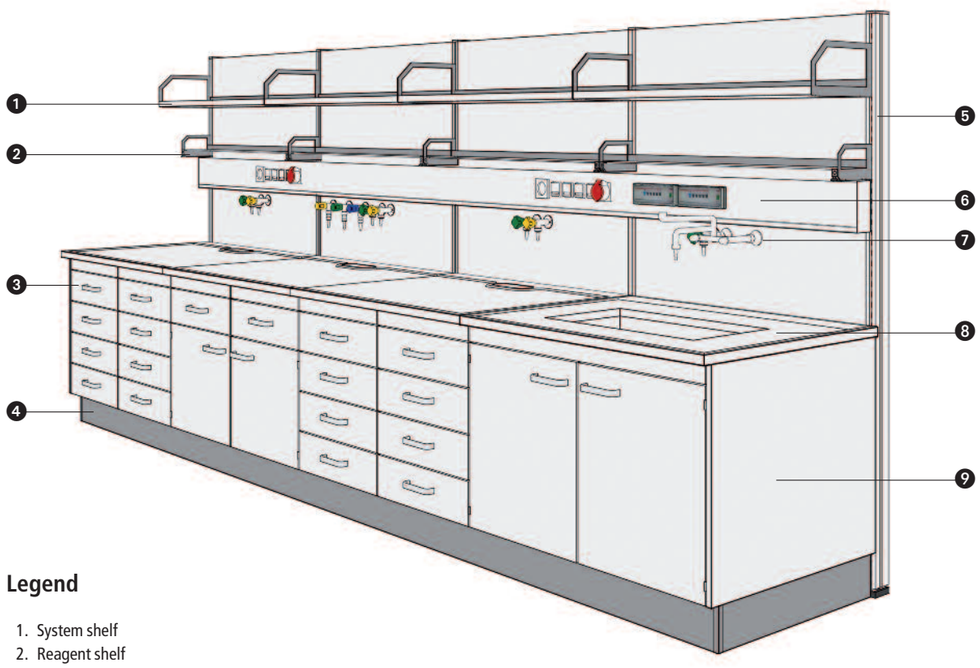
Technical data

System support height:	**1970 mm**
Width:	**600 mm / 900 mm / 1200 mm / 1500 mm**
Working height:	**743 mm** (sitting working height) / **910 mm** (standing working height)
Working depth:	**600 mm / 750 mm / 900 mm**

2

B I Wallbenches with service spine

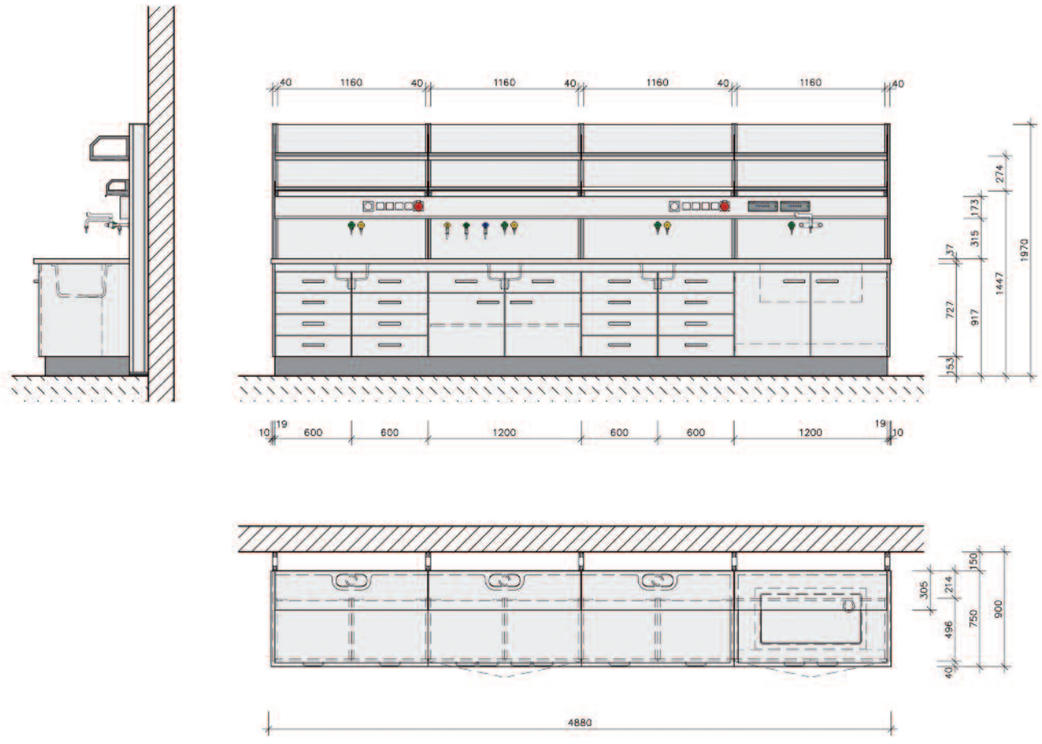
Laboratory wallbenches comprise service spines in sizes of 600, 900, 1200 and 1500 mm and the adjacent bench variants. The modular design allows for virtually custom solutions. There is a broad selection of taps, valves and fittings, shelf systems, electrical devices, worktops, sinks and base cabinets. The integrated height raster of the system support allows for simple height adjustment for reagent shelves and system shelves.



Legend

1. System shelf
2. Reagent shelf
3. Cabinet with plinth
4. Plinth panel
5. System support
6. Electrical conduit
7. Taps / valves / fittings
8. Worktop
9. Side panel

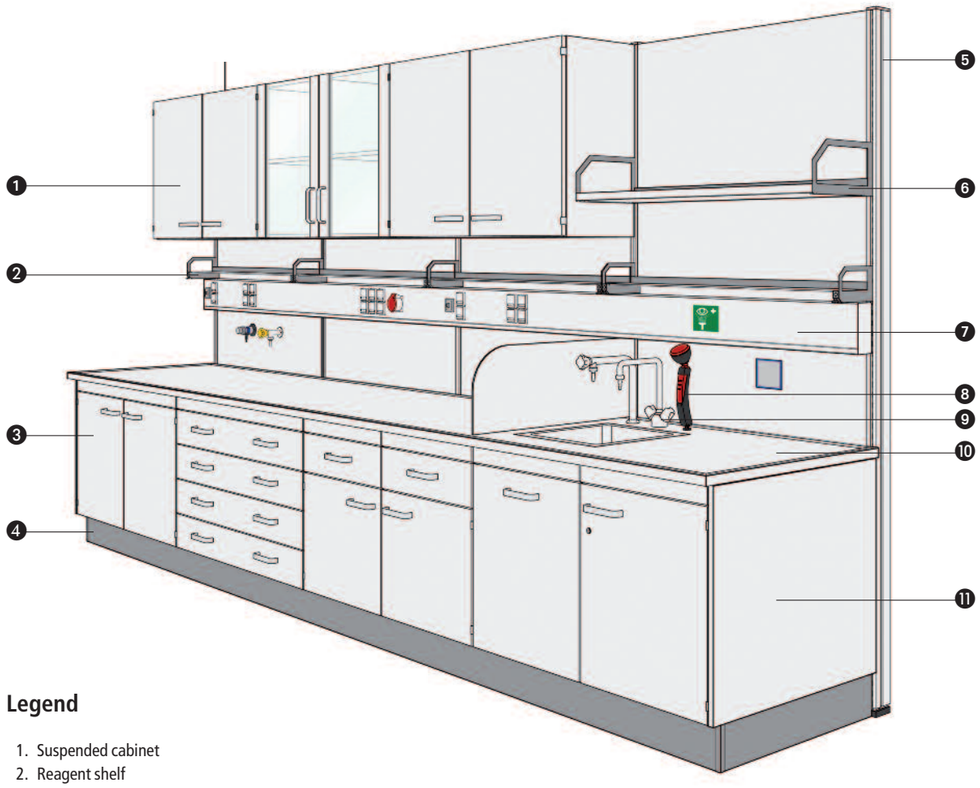
Measurements



2

B I Wallbenches with service spine – Variant

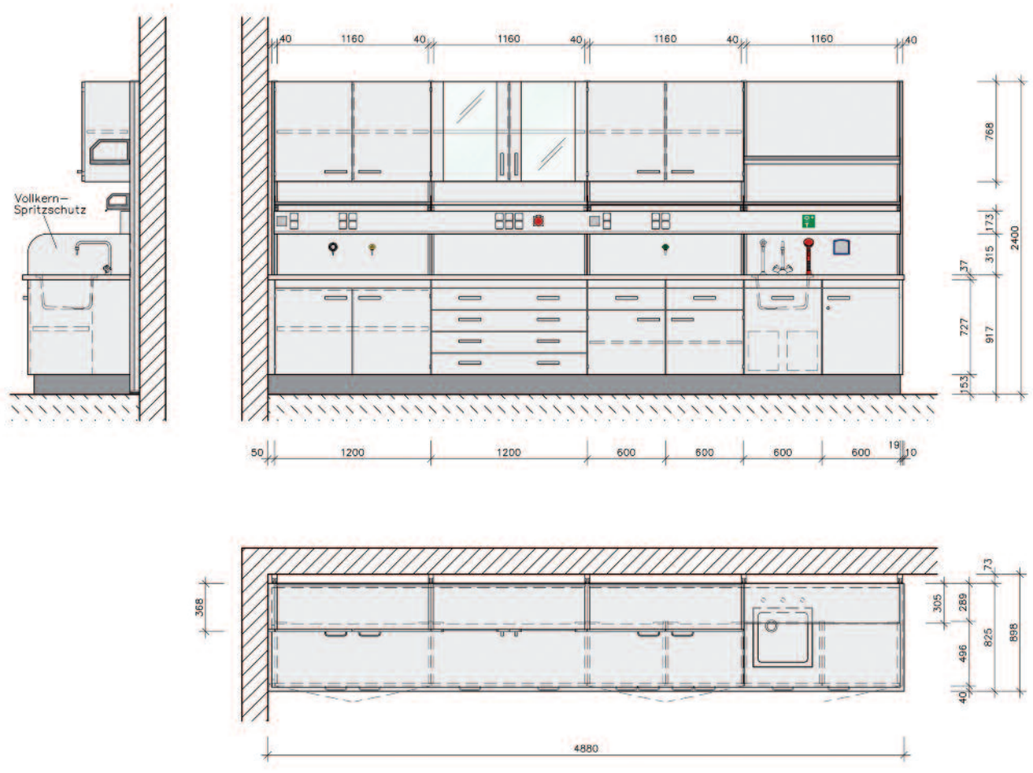
The modular system allows for virtually custom solutions, and they can be changed or adapted any time. Simply extending the system supports will provide room for the mounting of additional reagent shelves, system shelves and even suspended cabinets. Laterally placed splash guards made from safety glass protect both the work place as such as well as the equipment and devices near the sink.



Legend

1. Suspended cabinet
2. Reagent shelf
3. Cabinet with plinth
4. Plinth panel
5. System support
6. System shelf
7. Electrical conduit
8. Emergency eye wash fitting
9. Taps / valves / fittings
10. Worktop
11. Side panel

Measurements



2

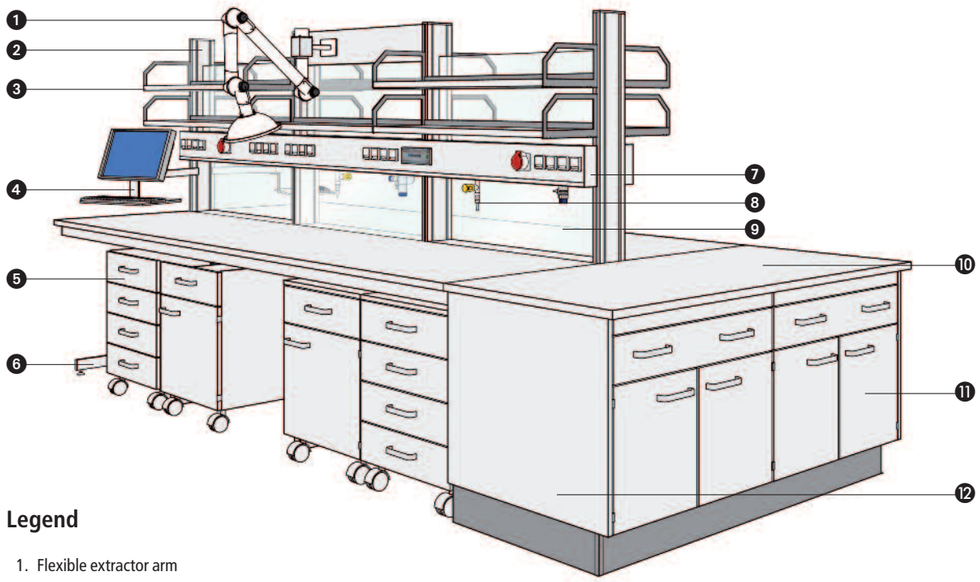
C I Laboratory island benches

The service spine is the centrepiece of the laboratory island bench. Both sides of the island bench are fitted with the necessary taps, valves, electrical conduits, system shelves and reagent shelves. The workbenches are placed at both sides adjacent to the service spine.

A laboratory bench variant comprises a cantilever steel frame and the worktop. Mobile base cabinets can be moved under the worktop. Sink units or tables can be added at either side.

The system support at the service spine can be fitted in variety of ways, e.g. to hold monitors or workplace lights. Extractor hoods and flexible extractor arms can also be mounted.

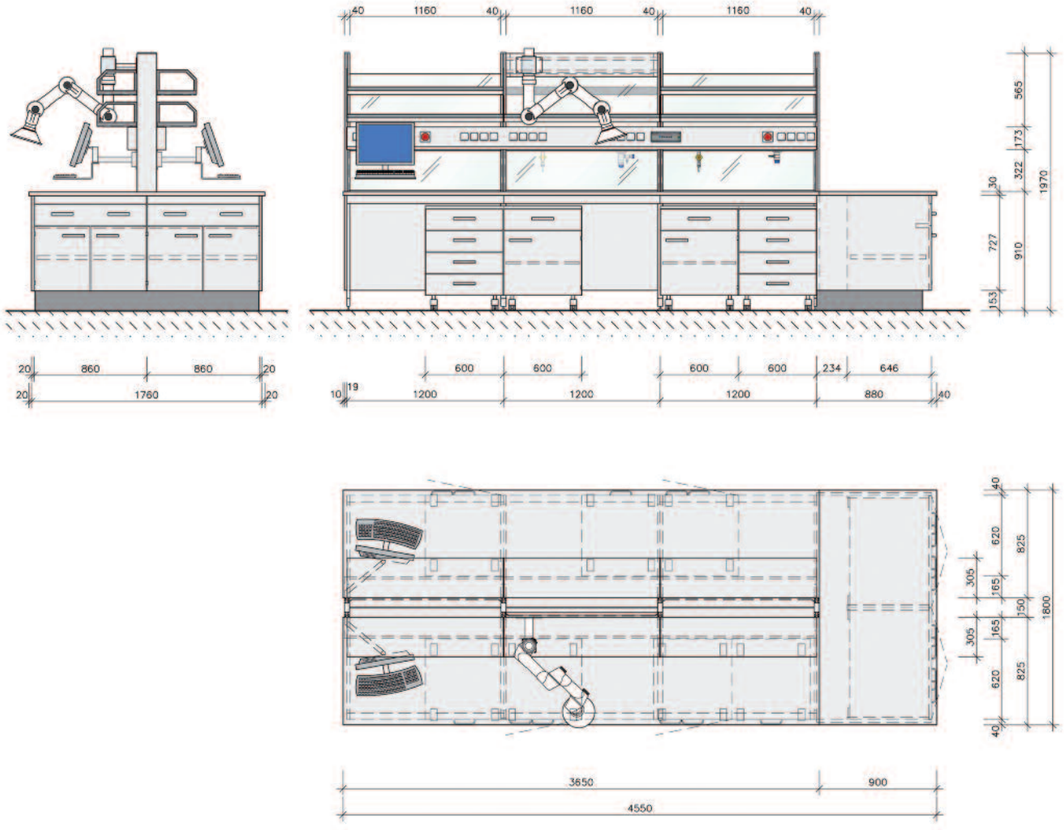
Frequently, island benches are fitted with suspended taps and valves plus safety glass partitionds. This permits a clear view to the opposite workplace and generally provides for a more transparent working environment.



Legend

1. Flexible extractor arm
2. System support
3. System shelf
4. Monitor support
5. Mobile base cabinet
6. C-type frame
7. Electrical conduit
8. Taps / valves
9. Splash guard
10. Worktop
11. Cabinet with plinth
12. Side panel

Measurements

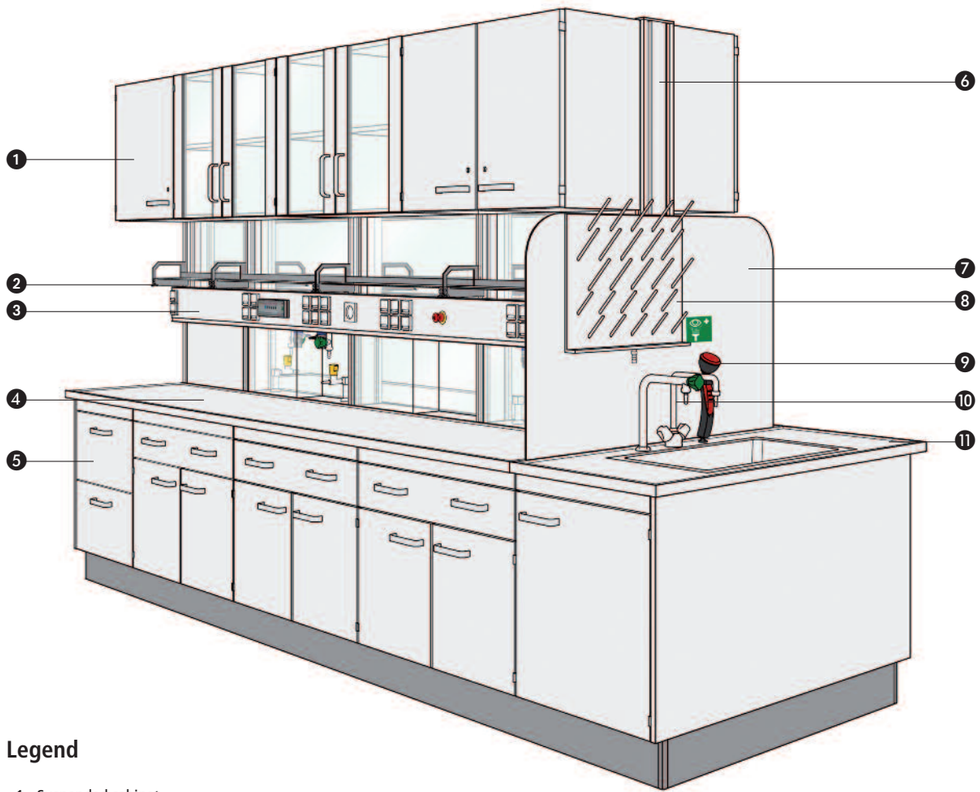


2

C I Island bench with service spine – Variant

The modular design allows for the arrangement of island benches with many variants. Extending the system supports, for instance, will provide for markedly increased storage space by mounting suspended cabinets at either side of the service spine.

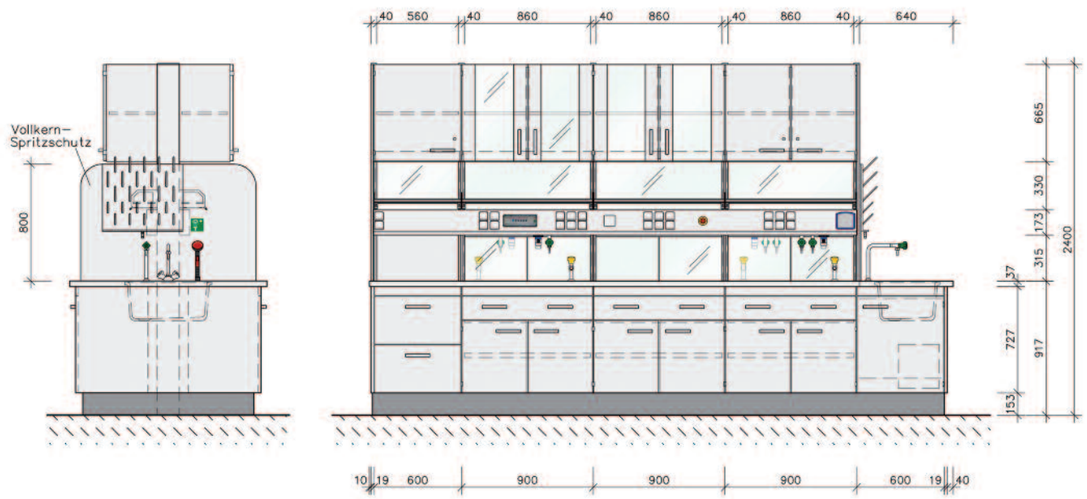
Very often island benches are fitted with end sink units. Splash guards separate these sink units from adjacent workplaces. Draining racks, soap dispensers and towel dispensers can be added as desired.

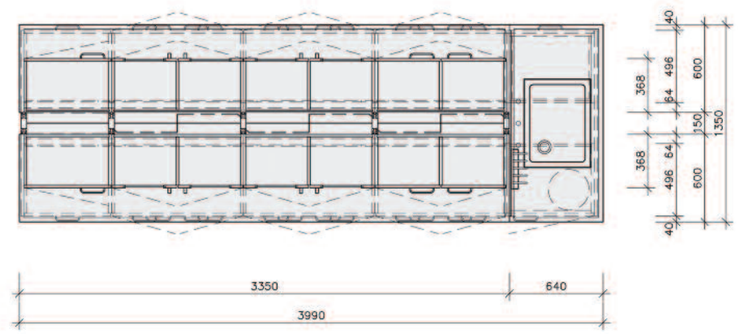


Legend

1. Suspended cabinet
2. Reagent shelf
3. Electrical conduit
4. Worktop
5. Cabinet with plinth
6. System support
7. Splash guard
8. Draining rack
9. Emergency eye wash fitting
10. Taps / valves
11. End sink unit

Measurements





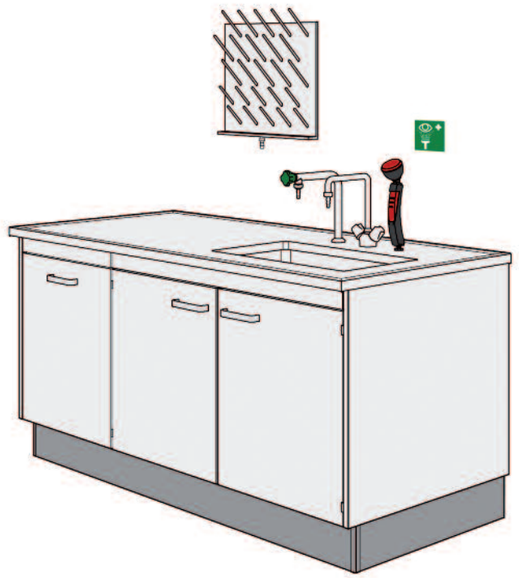
2

D | Sink units

Laboratory sink units are available in three variants:

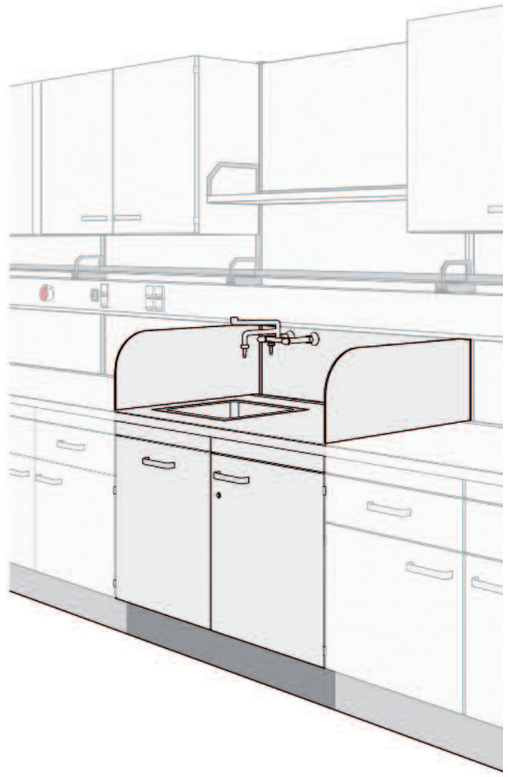
1. Laboratory sink module

Benchtop mounted taps, worktops and sinks are available in various designs and variations.



2. Integrated sink units

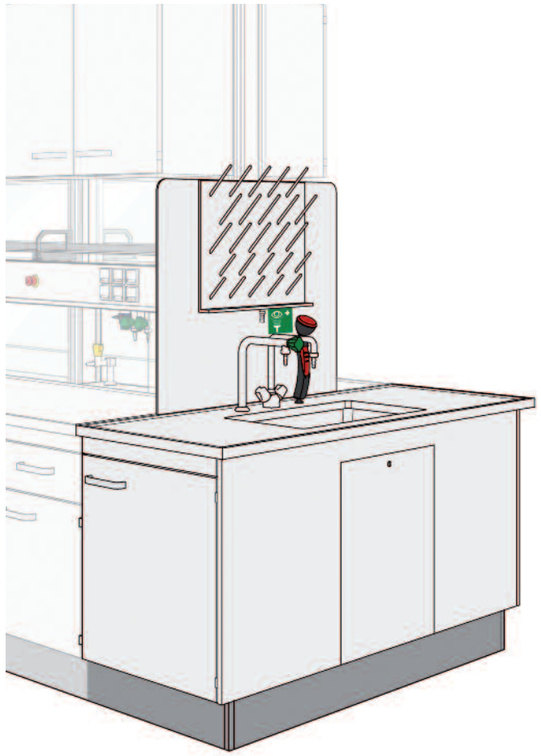
In this case the sink unit is an integral part of a wall or island bench. Taps and fittings are available as benchtop mounted or wall-mounted elements. Lateral splash guards are optional available.



3. End sink units

This sink unit is placed at the front edge of the island bench. The solid phenolic resin splash guard panel will support the drain rack, soap dispenser and towel dispenser.

There is a selection of sink top materials, sinks and sink sizes available. The base cabinet for the sink unit can be fitted with different waste collecting systems, and if there is a need, a water boiler or a through-flow heater can be installed.



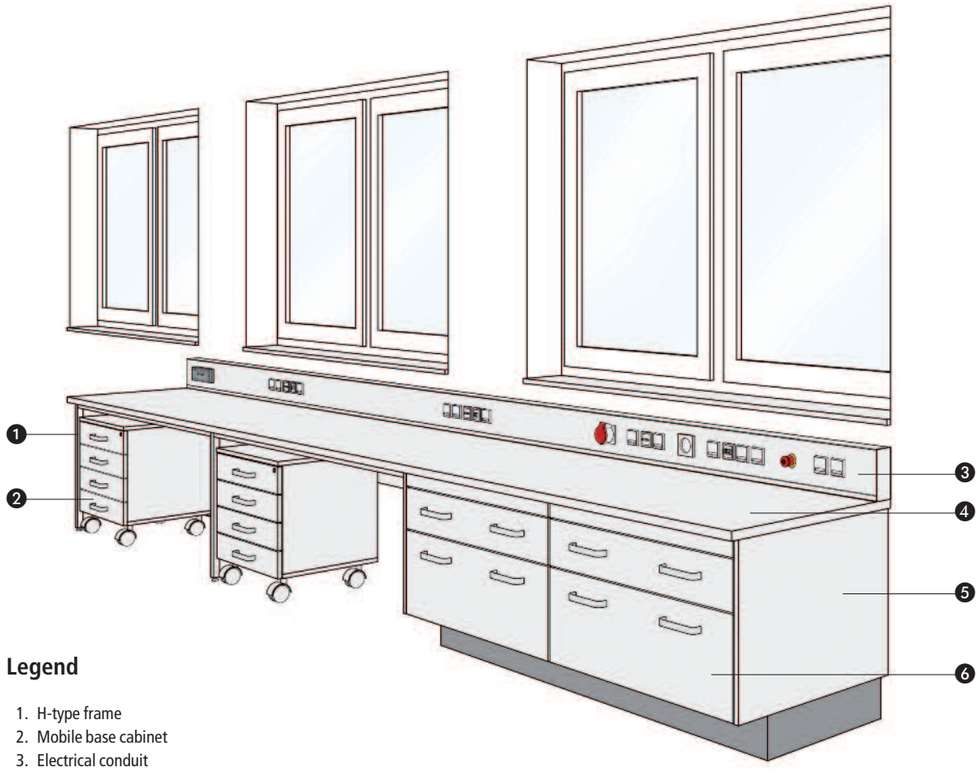
2

E I Desk tops

Demands and directives call for increasing documentation and data processing, and as such there is a need for desk workplaces. Users prefer them to be located near windows.

Working desks comprise a cantilever steel frame and a worktop. Cabinets on castors will fit under the worktop. One variant made up of plinth based cabinets with recessed kneespace panels for seating arrangements are also available.

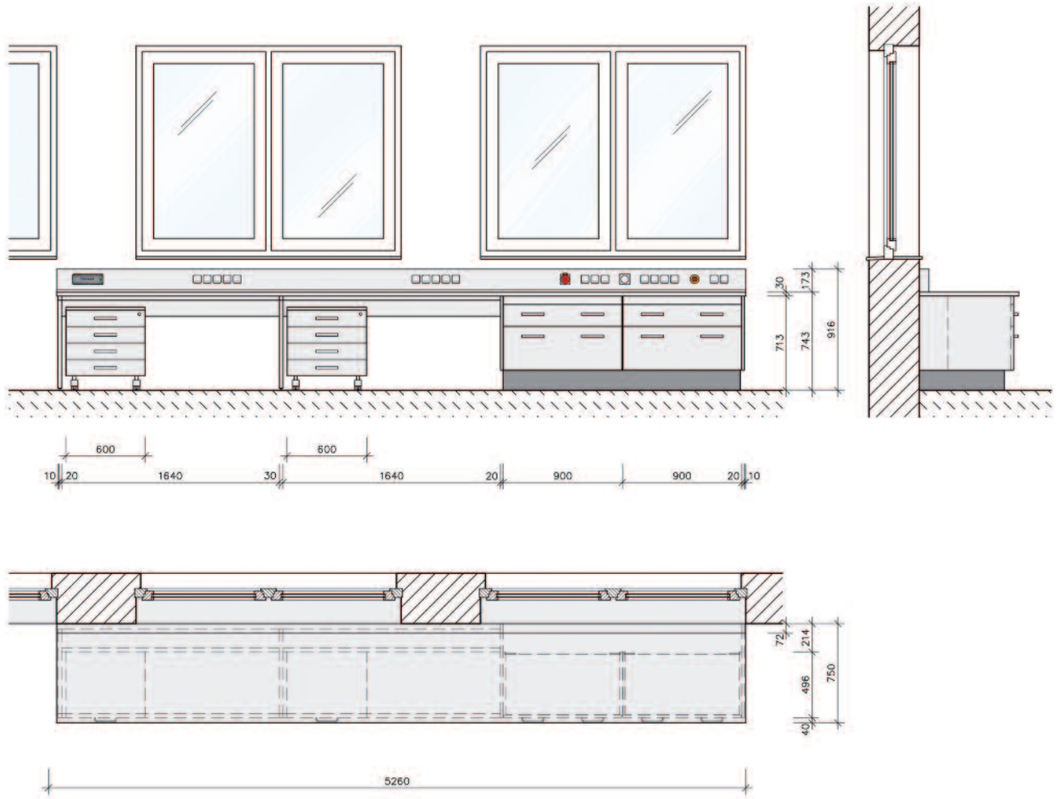
Electric power supply is provided either via a wall-mounted electrical conduit or via a conduit placed at the rear of the desk. Cable grommets and the use of venting grids to allow for the circulation of radiator heat can be provided.



Legend

1. H-type frame
2. Mobile base cabinet
3. Electrical conduit
4. Worktop
5. Side panel
6. Cabinet with plinth

Measurements



2

F I Worktop material

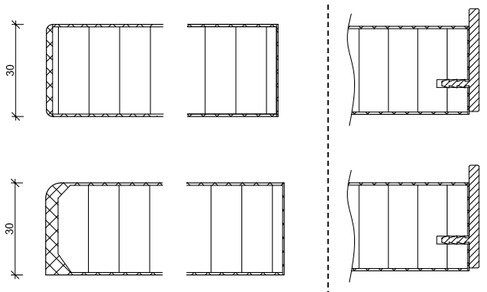
Resistance against chemicals and reagents, scratch proof, load capacity per m², specifications for cleaning and hygiene, surface hardness and temperature stability – these are prime criteria for choosing the right material.

Here is a list of possible materials:

1. Melamin resin (HPL) worktops

1a High-density particle board, high pressure laminated (HPL), E1, polypropylene edge 2 mm

1b High-density particle board, high pressure laminated (HPL), E1, polyurethane (PUR-soft) edge



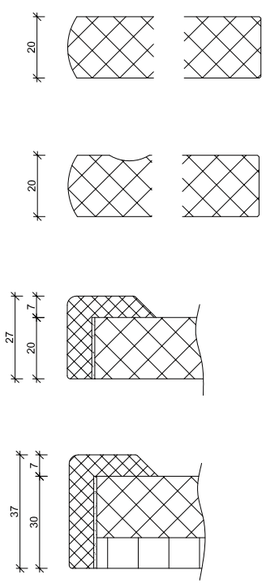
2. Solid grade laminate worktops

2a Solid grade laminate worktop with chamfered front edge

2b Solid grage laminate worktop with chamfered front edge and drain groove

2c Solid grade laminate worktop with epoxy marine edge

2d Solid grade laminate worktop with epoxy marine edge

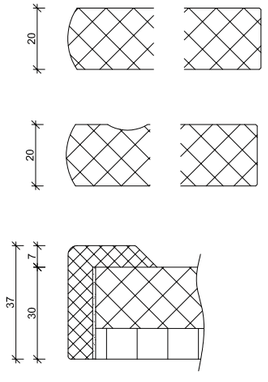


3. Solid grade Trespa Toplab+ worktops

3a Solid grade Trespa Toplab+ worktop with chamfered front edge

3b Solid grade Trespa Toplab+ worktop with chamfered front edge and drain groove

3c Solid grade Trespa Toplab+ worktop with epoxy marine edge

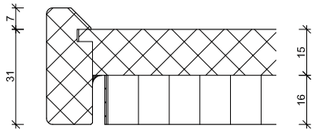


2

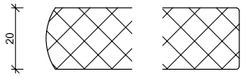
F I Worktop material

4. Polypropylene worktops

4a Polypropylene worktop with marine edge, base plate high-density particle board high pressure laminated (HPL)



4b Solid grade polypropylene worktop with chamfered front edge

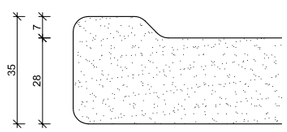


5. Stainless steel worktops

5 Stainless steel worktop, material no. 1.4301 (304) or 1.4571 (316) with marine edge and dripping rim

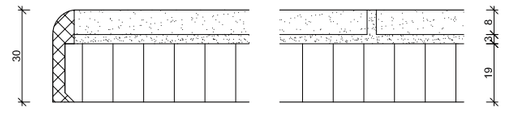
6. Stoneware worktops

6 Stoneware worktop with marine edge

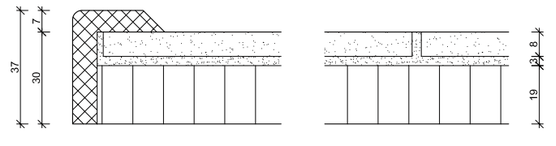


7. Stoneware composite worktops

7a Stoneware composite worktop, 8 mm thick stoneware, base plate high-density particle board high pressure laminated (HPL), polyurethane (PUR-soft) edge

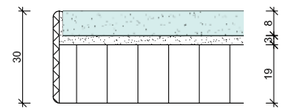


7b Stoneware composite worktop, 8 mm thick stoneware, base plate high-density particle board high pressure laminated (HPL), epoxy marine edge

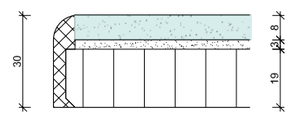


8. Glas composite worktops

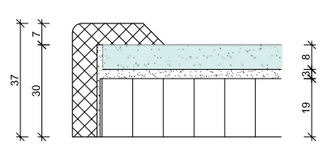
8a Glass composite worktop, 8 mm thick single-pane safety glass (ESG), back side laquered. Base plate high-density particle board high pressure laminated (HPL), polypropylene edge 2 mm



8b Glass composite worktop, 8 mm thick single-pane safety glass (ESG), back side laquered. Base plate high-density particle board high pressure laminated (HPL), polyurethane (PUR-soft) edge



8c Glass composite worktop, 8 mm thick single-pane safety glass (ESG), back side laquered. Base plate high-density particle board high pressure laminated (HPL), epoxy marine edge

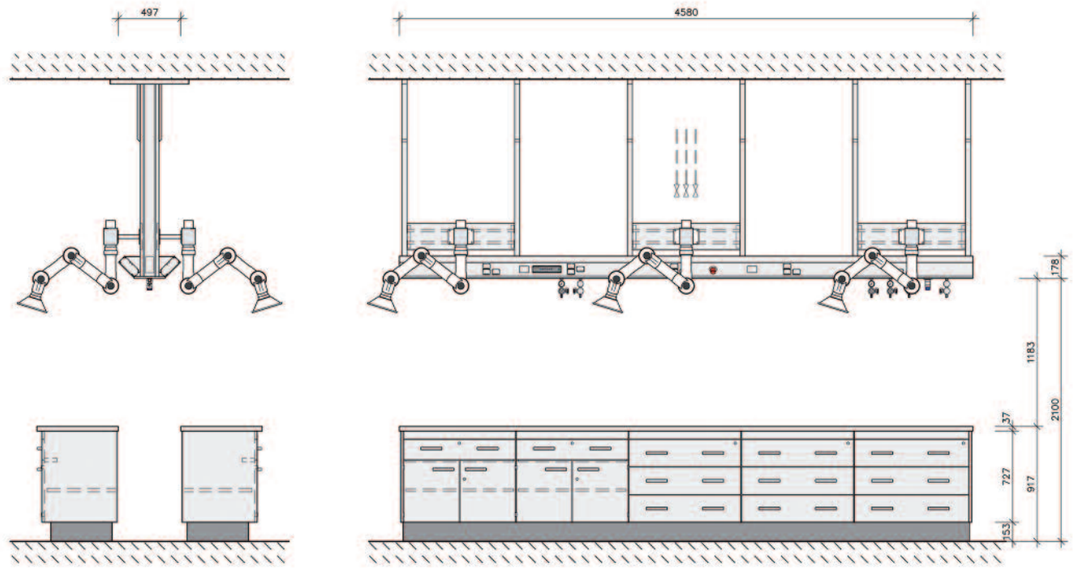


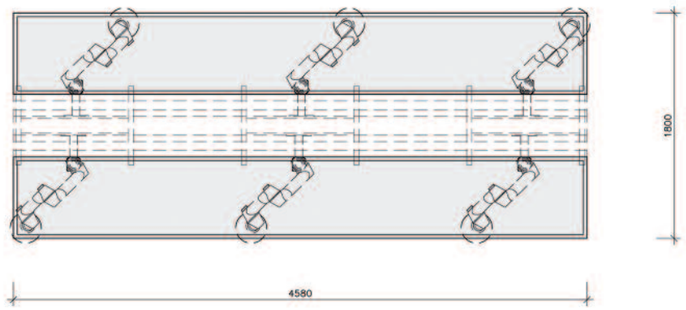
3 Overhead service wing

An overhead service wing is an energy and media supply system. It is used where there is a need for variability and changes to the laboratory floor plan dictated by changing requirements to laboratory operations and equipment. With the overhead service wing, furniture and equipment in the laboratory can be placed and re-arranged at random. In analytic laboratories with its high grade instruments and accessories, easy access – also to the rear of such instruments – is of major importance.

The overhead media ceiling system comes in module length of 600, 900, 1200 and 1500 mm and it is fitted with valves and fittings for various media and pure gas as well as with the appropriate electric components. Mounting to the ceiling is realised with system carriers which also allows for the additional mounting of extraction ducts, shelves and suspended cabinets.

Measurements





4 Space storage

Proper storage – the main criteria for laboratory cabinets

We offer storage cabinets for equipment, consumables, documents, chemicals, solvents, pipettes and writing accessories. Tall cabinets – also with top mounted cabinets –, hanging cabinets, base cabinets or drawer cabinets: Our assortment is virtually unlimited.

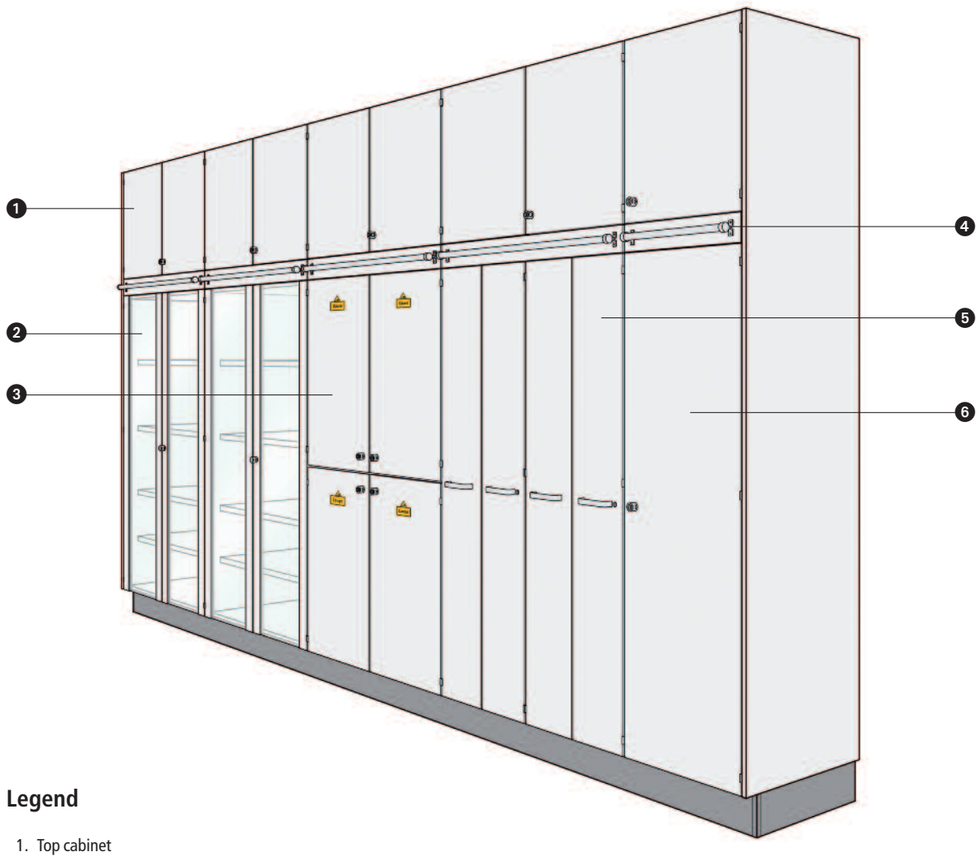
Cupboards and cabinets are available in many variants: With integrated exhaust, locking systems, glass doors, glass sliding doors, drawers and extending shelves – in several dimensions. We use only high-quality furniture fittings. Our fully automated production line produces cabinets, doors and shelves to precise dimensional criteria, serving as the basis for the continuously high quality level.

A | Laboratory cabinets 54
B | Tall cabinets 56
C | Top cabinets 58
D | Hanging cabinets 59
E | Base cabinets with plinth 60
F | Mobile base cabinets 61

4

A | Laboratory cabinets

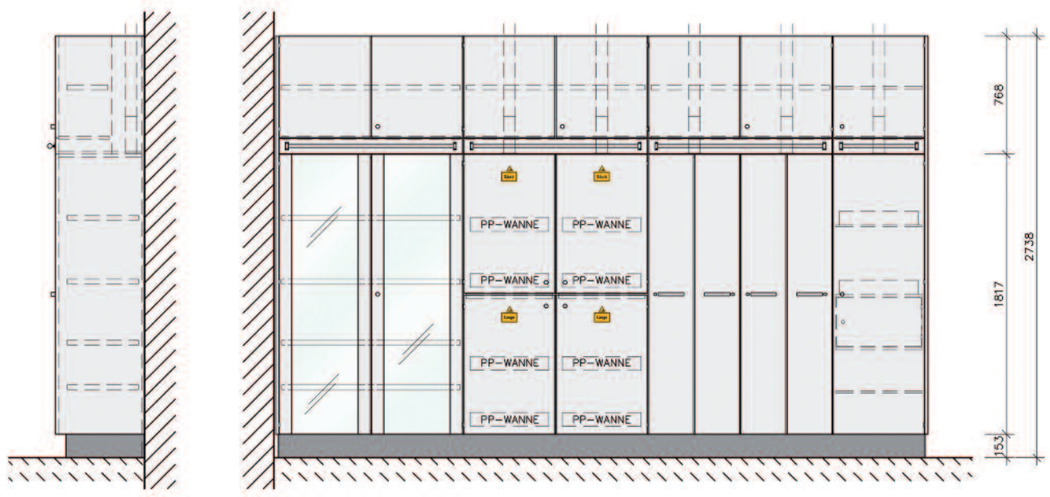
Cabinet arrangements can be built from the large range of tall cabinets. They can be fitted with top cabinets, and if so desired, we provide matching panels to close open gaps all the way to the ceiling. Shelves and drawers are secured against inadvertent drawing. For added protection, cabinet fronts and shelves feature polypropylene edges.

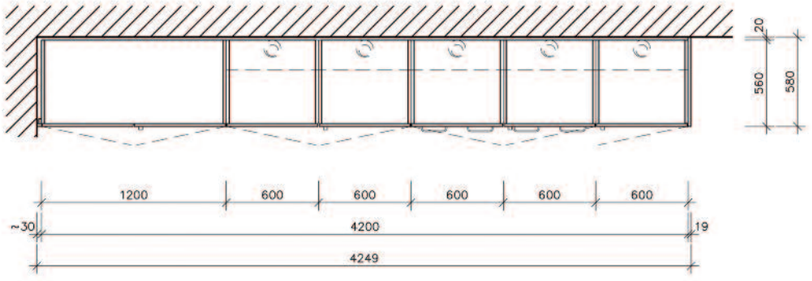


Legend

1. Top cabinet
2. Tall cabinet with glass doors
3. Acid and alkali storage cabinet
4. Ladder rail
5. Drawer cabinet
6. Tall cabinet

Measurements

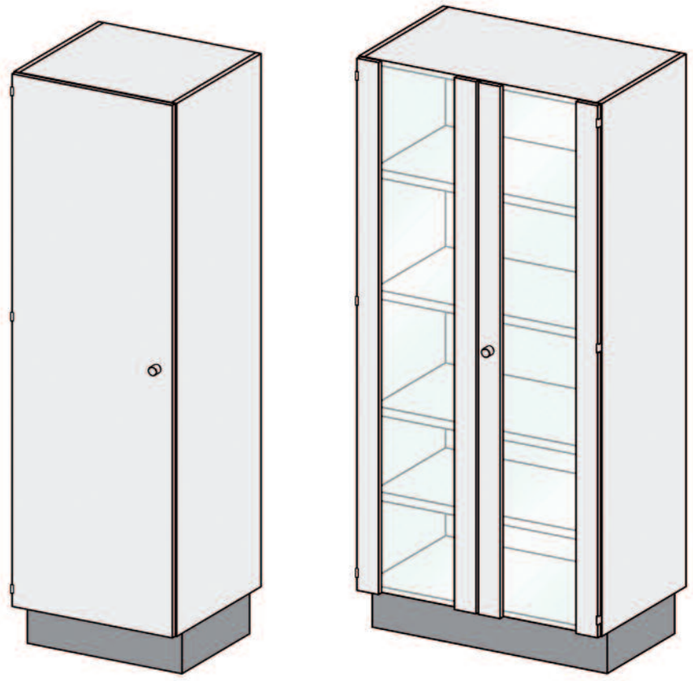




4

B | Tall cabinets

Tall cabinets come in various widths and depths. Fronts are available as hinged doors with or without glazing or as combinations with doors and drawers. Special equipment cabinets will hold freezer, refrigeration or drying units. These cabinets come with the necessary venting grids. Cabinets with extraction are fitted with 75 mm ports and constant air volume controller.
The exhaust air volume is 40 m^3/h. Doors are fitted with olive handles and can be fitted with an integrated cylinder lock.



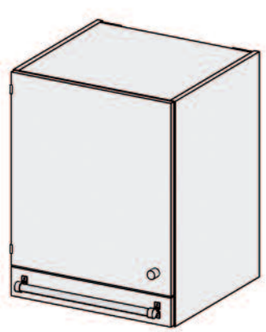
Technical data

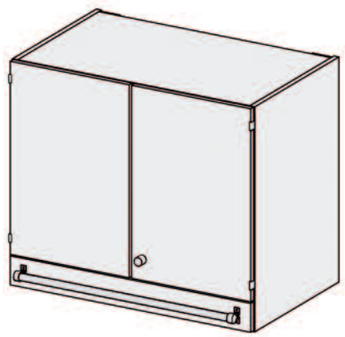
Width:	450 / 600 / 900 / 1200 mm
Height:	1970 mm
Depth:	368 / 560 mm

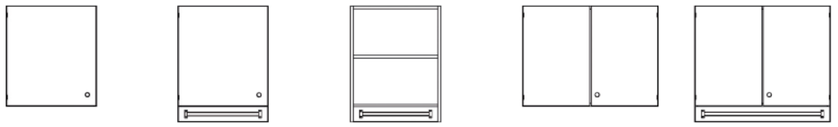
4

C | Top cabinets

We offer top cabinets with three different heights and adjustable shelves. Top cabinets are supplied with a ladder rail to fasten a safety ladder. Doors are supplied with handles and if so desired with locking system.





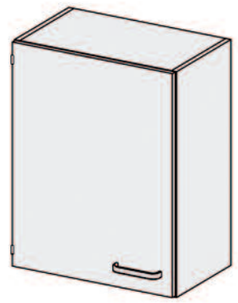


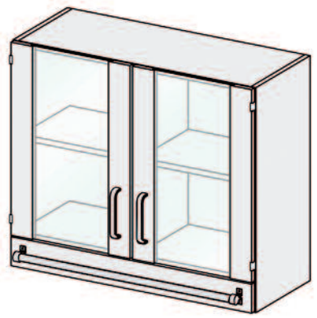
Technical data

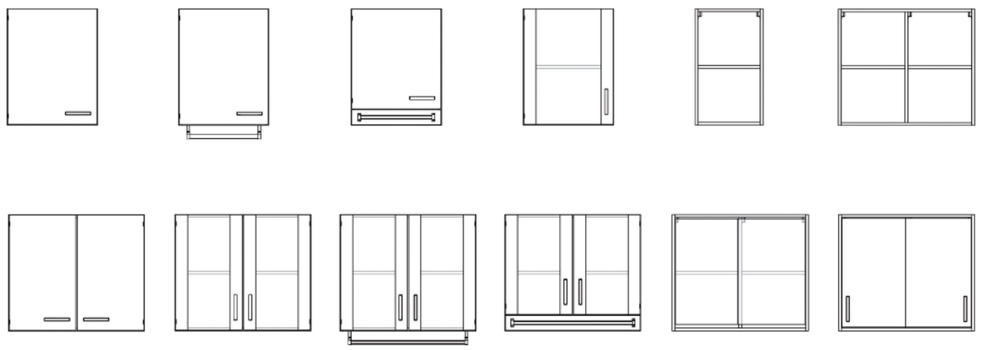
Width:	450 / 600 / 900 / 1200 mm
Height:	665 / 768 mm
Depth:	368 / 560 mm

D | Hanging cabinets

Hanging cabinets are supported either in system supports of a wall bench or island bench or they are mounted at a wall. They come with height-adjustable shelves. Doors are fitted with anodized aluminium D-handles. Customers can select hinged doors or sliding glass doors. Hanging cabinets can also be fitted with a ladder rail.







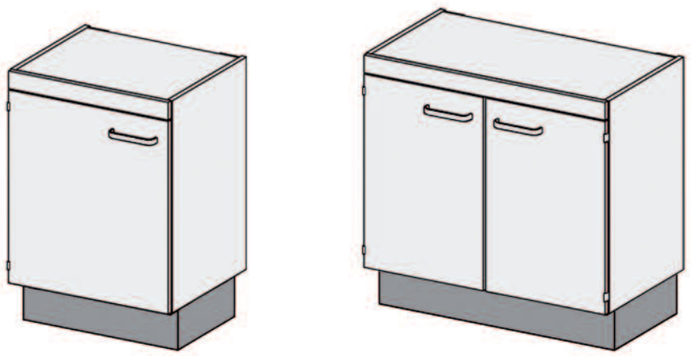
Technical data

Width:	600 / 900 / 1200 mm
Height:	498 / 664 / 768 mm
Depth:	368 mm

4

E | Base cabinets with plinth

Base cabinets with integrated plinth elements feature four adjustable feet to permit necessary corrections for uneven floors. A soft lip seals the plinth panel against the floor. Hinged doors and drawers come with aluminium D-handles, and cabinets with hinged doors feature height adjustable shelves. Drawers move in metal frames for optional full extension. Options also include cylinder locks.

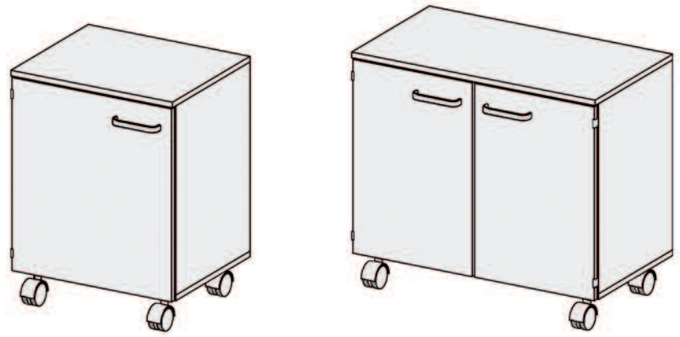


Technical data

Width:	**450 / 600 / 900 / 1200 mm**
Height:	**712 mm** (sitting working height) / **878 mm** (standing working height)
Depth:	**500 mm**

F | Mobile base cabinets

Mobile base cabinets can be pushed into H-frames or C-frames. They come with four swiveling dual casters, two of which can be locked. Cabinets with hinged doors feature height adjustable shelves. To preclude any tipping of the cabinet, a safety interlock ensures that only one drawer can be extended at any one time.



Technical data

Width:	**450 / 600 / 900 / 1200 mm**
Height:	**633 mm** (sitting working height) / **799 mm** (standing working height)
Depth:	**500 mm**

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