





## CONCEPT



You can find everything under one roof at Vinitex. Because we design and produce everything ourselves we can translate the wishes of our customers into flexible solutions. From concept till installation, we offer a Turn-key solution for the facility of your laboratory.

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# FUME CUPBOARDS

A lot of tests and experiments performed in a laboratory can produce dangerous gases, fumes, particles or liquids which can cause dangerous situations. By performing these activities in a well functioning fume-cupboard, the personal protection will be guaranteed. Depending on the experiments, used chemicals and circumstances we offer different solutions varying from standard to custom-made products or a efficient combination of those two.



## FUNCTIONALITY

A fume cupboard should be mounted and has to be connected to an extern exhaust system (not integrated) for good functioning.

The construction of the fume cupboard (in accordance with EN 14175-2) in combination with a sufficient exhaust system prevents turbulence that could carry pollutant emissions. In order to achieve the best combination of safety and efficiency we would gladly advise you about the possibilities.

## SASH OPERATION

For the safety of the user during the activities at the fume-cupboard, we advise to close the vertical sliding sash as much as possible and use the horizontal sliding windows. The maximum mode for the vertical sliding sash is 500 mm, whereupon the sliding sash will block automatically. During the preparation of the experiment the sliding sash could be opened till about 900 mm above the worksheet for a better access. The sliding sash consists of two moving parts (telescope) which will never rise above the fume-cupboard.

## EN 14175 & NPR 4500

Vinitex fume-cupboards are constructed and tested in agreement with the European standards EN 14175 and Dutch Practice 4500. Every fume-cupboard will therefore have an airflow control unit for a continuous protection. The control lights indicate if the fume-cupboard functions correctly (green), when there is too much air extracted (yellow) or in case of an unsafe situation (red light + alarm). With the control lights you are always sure of a safe work environment.





## FUME CUPBOARDS



### STANDARD TYPE A.S.

The standard fume cupboard type A.S. will be applied for general use, both industrial laboratories as in hospitals, universities, research- and test institutes.

The fume-cupboard is available in the widths 1200, 1500 and 1800 mm and will have a standard Vinitex airflow-control unit.



The tap and electricity facilities could be applied on specification. Also several worktop materials and accessory options give a possibility for implementing individual wishes.

### CABINETS

The standard fume cupboards will be provided with swing door cabinets with one shelf and a connection on the internal exhaust of the fume cupboard. The cabinets are provided with two castors at the back and a steel coated plinth at the front. Therefore the cabinets are easy to remove so that there is a good access to the piping and drainage work. There are different possibilities besides the standard cabinets like seating space, safety cabinet (90 min.), or acid/base storage.





Other fume cupboard types are:

- **Bench fume cupboard** for light chemical work (placed directly on a lab bench)
- **Drive-in fume cupboard** without worktop
- **Walk-in fume cupboard** reduced worktop
- **Instruction fume cupboard** provided with a sliding sash at both sides
- **Destruction fume cupboard** for thermal destruction activities with aggressive acids
- **HF fume cupboards** for activities with fluorine hydrogen
- **Radio-isotope fume cupboard** for activities with radioactive substances possible with filter cabinets
- **Specials** extra depth, widened or tailor-made cupboards



# FUME CUPBOARDS

## Energy consumers in a laboratory

An average laboratory is using up to 5 till 10 times more energy than an office. With the current energy prices and environmental issues it is very interesting to find out where the large energy consumers are and how to save on these.

Climate control and exhaust systems are the biggest energy consumers in a laboratory. Fume cupboards often have a big part in this. A fume cupboard extracts a continuous amount of heated air out of the room and blows this into the open air. A good way to prevent needless use is to turn the fume cupboard off when it's not needed. However a bigger problem appears when the fume cupboard must operate 24/7. For sure when there are more fume cupboards operating in one room or building, it will extract a great amount of (heated) air out of the lab.



## VARIABLE AIR VOLUME

An effective and safe solution is the **VAV** (Variable Air Volume) system. This system continuously regulates a minimum extraction (by electrical control valve) taking into account the activities at the fume cupboard and the opening height of the sash.

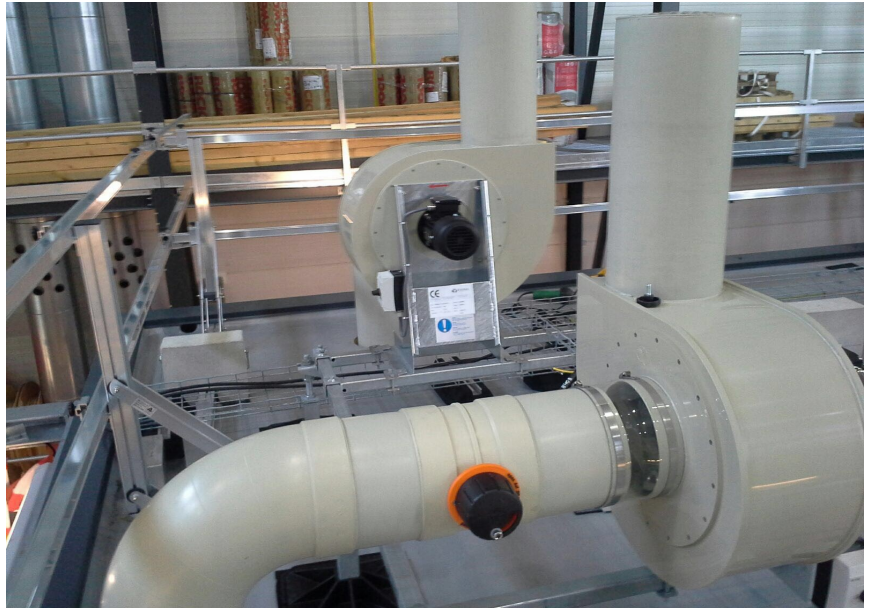
This can save a lot of energy and still guarantees a safe work environment. Optional the fume cupboard can be provided with an automatic sash closing system which can reduce the air consumption to an even lower level.

The effectiveness of the VAV system is different in each situation. The possibilities have to be carefully considered on forehand. We would like to guide you through this.



## EXHAUST SYSTEMS

One of the criteria for a good function of the fume cupboard is the use of the right exhaust system with the right exhaust capacity. The materials, pipe diameter, placement and dimension of the fans have to be chosen carefully.



Vinitex is specialized in the production of synthetic material centrifugal fans and exhaust channels for fume cupboards and advises the best solutions. You benefit of combining the responsibility for the fume cupboard and the exhaust system to one, respectively our responsibility. We would be pleased to advise you on this specific field.



## FLEXIBLE FURNITURE



VINITEX is specialized in furnishing complete laboratory facilities. Because of the flexible system our furniture is adaptable everywhere. It has found its way to numerous laboratories, hospitals, research institutes, universities, education facilities, inspectorates, industries etc.

Vinitex furniture can be performed in:

- C- frame system
- Plinth system
- H- frame system
- Column system (cantilever)

### H- frame system

The H-frame (40-20) is provided with synthetic leveling feet and is applicable for (seat) wall benches. The H- frame is also available as a strengthened frame (40-40) for free-standing benches.

### Column system

The column system has the same construction underneath the worktop as the C- frame wherefore the opportunities are similar. However the Column leg will be fastened to the floor with chemical anchors and will be sealed afterwards which creates a floating worktop construction, ideal for easy floor cleaning and free leg space.







### **Plinth system**

Self-supporting under bench unit with plinth and worktop. This system is mostly ideal for wash/sink units and in case a lot of storage space is required. The cabinets will be placed on adjustable feet where after the PE plinth will be placed independently against the feet.

### **C- frame system**

The C- shaped frame is a solid, sophisticated and flexible frame which is applicable with island- and wall benches, with the several possibilities for cabinets and seat space. The frame consists of steel coated C- shape leg provided with synthetic leveling feet.





FLEXIBLE FURNITURE







# FLEXIBLE FURNITURE

## MEDIA FACILITIES

For the several media are different assembling possibilities. Besides assembly directly on the worktop there are several options like wall and duct assembly. The taps are provided with color coding conform EN 13792.

Electricity facilities can be provided in an electricity column on the worktop or in an electricity duct. The electricity duct is splash proof and can be provided with many different options. The duct is constructed out of an aluminum profile with a steel plate cover which are connected with each other by a special seal. (TÜV-tested).







# STORAGE CABINETS

## SAFETY CABINETS

Storage of hazardous materials on the workplace, belonging to the ADR classes: 2, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1 and 8 according to the current regulatory and legislation (PGS 15, ARAB, CODEX, VLAREM).

Fire resistance 90 minutes Furnace tested (type test)  
GS approval, CE conformity Labelling in accordance with EN 14470-1

Measurement (WxDxH):  
1200x615x1968 mm (2 doors) or  
600x615x1968 mm (1 door)



### Mechanical extraction

The safety cabinets and the lye/base cabinets must be connected to a continuous exhaust system for a safe function (PGS-15). Depending on the materials which are stored in the cabinets and the situation inside the building, we would gladly inform you about the possibilities.



## ACID / BASE STORAGE

The lye/base cabinets consist of two separately compartments (PGS 15) which are provided with a swing door with a lock.

Both compartments have three pull-out boards complete with synthetic tray.  
Both compartments have an exhaust grate, with at the upper side of the cabinet a connection for mechanical extraction.

Measurement:  
600x520x2050mm (WxDxH)

### Ventilation

At the cabinet ceiling the connection point for mechanical extraction is provided. Diam. 75mm.



## STORAGE CABINETS

Vinitex has a large assortment of storage cabinets like Under bench cabinets, over bench cabinets, top-mounted cabinets, showcases and pharmacists cabinets. Besides this we would gladly inform you about other possibilities and specials.







## COLOURS

The atmosphere and the image quality of a laboratory depends strongly on the combination of colours. The employees of a laboratory will spend a lot of hours inside the laboratory which makes a good combination of light and space, colours and materials essential. Whether your preference is timeless or modern, we would gladly advise you about the possibilities.





Industrieweg 12A  
NL-5492 NG Sint-oedenrode  
Netherlands

Tel: +31 (0)413 491900  
Email: [info@vinitex.nl](mailto:info@vinitex.nl)  
http: [www.vinitex.nl](http://www.vinitex.nl)