weisstechnik®
a schunk company

Safety workstations for laboratories and biotechnology

www.weiss-technik.com

You are in safe hands with us.

Our safety workstations for discerning customers.

Reliable protection

Chemical and pharmaceutical companies, laboratories, forensic departments, system engineering and medical technology manufacturers are expected to fulfil stringent safety requirements. If you would like to offer your employees and the environment reliable protection against harmful vapors, aerosols and dusts, you have come to the right place with the innovative safety workstations of Weiss Pharmatechnik.

Reap double the benefits

We have designed all of our units in such a way that they comply with both technical functional and economic requirements. This results in well-thought-out, high-performance and ergonomic workstations, with which you can protect the health of your employees and optimize your workflow.

Our customer is king

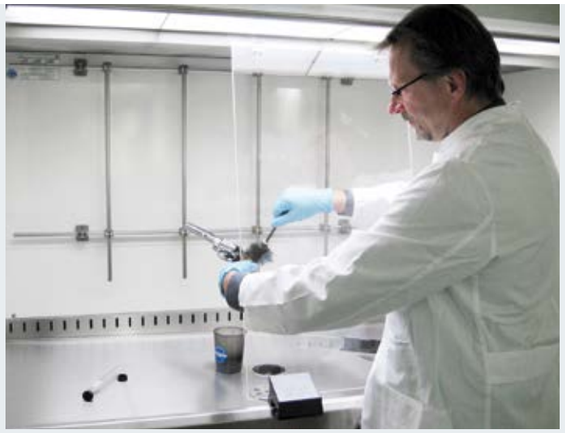
You can trust the many years of experience Weiss Pharmatechnik has in the manufacture of safety and laboratory workstations. Our extensive product repertoire ranges from innovative standard devices to customized special designs. All of our units are adapted to the individual needs of our customers. You decide what you need. We offer you the ideal solution.

Versatile

Our safety workstations are ideally suited for emptying and filling, refining and sampling in laboratories and in the chemical or pharmaceutical industry. They make it possible to assemble sensitive electronic components in dust-free conditions. Further areas of application include coating of medical and medical technical products and the forensic examination of evidence.

All conditions are fulfilled

Our laboratory and system workstations correspond with the stipulated legal requirements and standards. We also offer you a wide range of services to ensure that you also are on the safe side in the long term. In addition to maintenance, repairs and qualification, we ensure that all relevant provisions are adhered to in the long-term.



Advantages of our safety workstations

- Innovative air flow technology
- Reliable safety technology
- Individual customer solutions
- Comprehensive services

WIBOjekt® economy safety workstations.

The right unit for every requirement.

Type EB – for industry

The WIBOjekt® economy safety workstation type EB is ideally suited for the industrial sector. Work such as emptying and filling, washing, cleaning, assembling, weighing and general laboratory work can be carried out in a safe environment. With the EB type series, you can be sure that you adhere to the permissible outbreakin accordance with BG-Chemie [Chemical Industry Employers Liability Insurance], even in the case of an 800 mm free access height.

The compact construction of specially molded profiles made from high quality aluminum alloy offers you a particularly large, effective inner height, breadth and depth. The narrow side spoilers make it possible to have a large access opening. The WIBOjekt® economy safety workstation type EB only consumes low quantities of air, which considerably reduces your energy costs.

It is controlled via the freely programmable, multifunctional WIBO® Control System. The media installation channel is easily accessible, which makes it easier to carry out any necessary retrofitting.

Sectors

- Chemical industry
- Automotive and electronics industry
- Medical technology
- Nanotechnology
- Optical industry
- System engineering
- Micromechanics
- Laboratories, institutes and universities
- Hospitals and pathologies
- Cosmetics and food industries

Type EL – for laboratories

The WIBOjekt® economy safety outlet type EL was specially designed for the laboratory industry and complies with DIN EN 14175. With a sash opening of 800 mm, it also fulfils the retention capacity in accordance with BG-Chemie. The innovative unit is suitable for emptying and refilling, washing and cleaning and for general laboratory work.

The particularly large effective height, breadth and depth is achieved as a result of a compact construction of special mold profiles made from high quality aluminum alloy. The narrow side spoilers make it possible to have a large access opening. The exhaust air quantity control is automatically adapted to the vertical front sash opening of 500 mm to 800 mm. Despite its high performance, the unit only uses small amounts of exhaust air, which reduces your energy costs.

The WIBO® Control System has multifunctional and freely programmable controls. The media installation channel is easily accessible and makes it possible to carry out simple retrofittings. The WIBOjekt® economy safety fume hood type EL is also available in a space-saving design.

Sectors

- Chemical and pharmaceutical industry
- Genetic and biotechnology
- Cosmetics and food industries
- Medical and safety technology
- Nanotechnology
- Laboratories, institutes and universities
- Hospitals and laboratories
- Pathologies

Customer-specific solutions

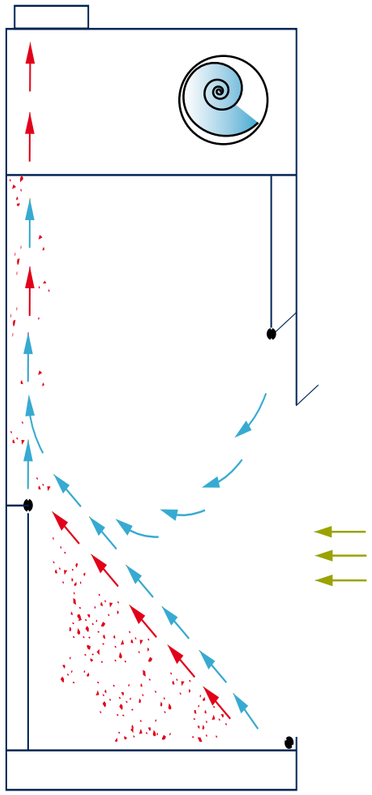
WIBOjekt® economy safety outlets type EB and EL are also available in individual dimensions and in conformity with ATEX.

The WIBOjekt® principle

Safety workstations for the protection of persons and the surrounding area.

Protection of persons

- **Protection of persons and the surrounding area**
  Harmful vapors, aerosols and dusts are safely dissipated.



Workstations and machinery used in work involving hazardous substances must fulfil functional and economic criteria. On the one hand, a high level of protection of persons and the surrounding area is required; on the other hand, work should be carried out as efficiently as possible. The WIBOjekt® economy safety workstation by Weiss Pharmatechnik offers both: safety and economic efficiency.

Perfect air flow

For all units with the tried-and-tested WIBOjekt® air flow principle, specially shaped and arranged ejectors are coupled with stabilizers to provide a stable fresh air curtain, which shields the working area from the surrounding area.
This air barrier ensures that harmful substances such as gases or airborne product particles are captured in a targeted manner and guided to the suction device. By doing this, employees and areas are reliably protected against emerging emissions.

The WIBO® ejector nozzles are perfectly attuned to one another in terms of their configuration, shape, direction, air speed and air quantity. This perfect combination makes it possible to achieve an optimum and needs-based flow picture.

The clean air curtain created therefore remains stable even when the employee reaches through it into the working area

Efficient and economical

Although units with the WIBOjekt® air flow principle are especially efficient, they require considerably lower quantities of exhaust air compared with traditional suction devices. This means that you not only save on energy, but you protect the environment as well.

Ergonomic and easy to use

The glare-free lighting and the high and wide front opening guarantee a comfortable working atmosphere. Large containers and laboratory equipment can be introduced without problems.

The right unit for every requirement

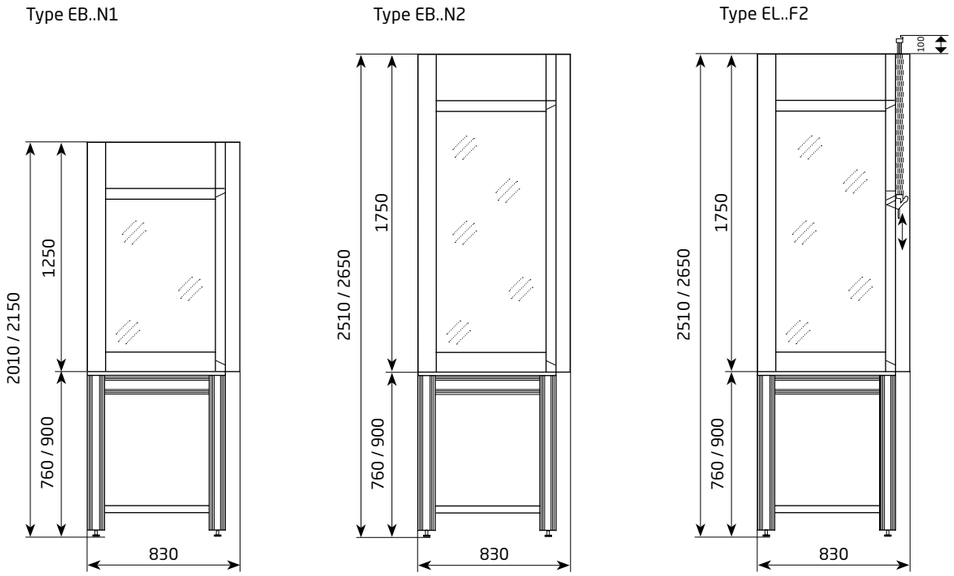
The WIBOjekt® economy safety workstations are available in various designs. They can be supplied with and without an underframe and can be easily installed on existing workbenches or units. Several individual units can be combined to make one large system. You will find detailed information regarding the unit types EB and EL on the following double page.

Optimum protection of persons and the surrounding area thanks to

- A stable clean air curtain
- Ejector nozzles that are attuned to one another
- Dissipation of airborne particles
- Protection against turbulence
- Tested safety in accordance with DIN EN 14175-3

Convincing performance.

Technical data for the WIBOjekt® economy safety workstation.



Customer-specific solutions

Weiss Pharmatechnik offers you a range of standard designs and options. We are happy to adapt all units to your individual customer needs and technical requirements.

Standard details

- Underframe made from special aluminum alloy
- High-quality corrosion and chemical protection due to Eloxal and dual component coating
- Covering using HPL material
- Side panes made from 6 mm laminated safety glass (VSG), shatterproof and easily exchangeable
- Work surface made from melamine-coated plate, water-resistant and easy to clean

Options

- Multi-part front sash with laterally movable or collapsible individual panes
- Exhaust air fan
- Exhaust air filter (fine dust/HEPA/carbon filter/demister)
- Worktops made from ceramic, stainless steel, etc.
- Tripod holder and shelves
- Sinks, troughs and hoppers
- Side parts made from polycarbonate, HPL or similar materials
- Sockets, fittings, valves and media lines
- Floor cabinets and hazardous substance floor cabinets
- Special material design polypropylene (PP/PP-EL)
- Explosion-proof design in accordance with the ATEX guideline

Technical data type EB..N1/N2

Type	EB09N1/N2	EB12N1/N2	EB15N1/N2	EB18N1/N2	EB24N1/N2
N1: Outer dim. W x D x H[1]	900 x 830 x 1250 mm	1200 x 830 x 1250 mm	1500 x 830 x 1250 mm	1800 x 830 x 1250 mm	2400 x 830 x 1250 mm
N1: Inner dim. W x D x H[1]	800 x 635 x 1100 mm	1100 x 635 x 1100 mm	1400 x 635 x 1100 mm	1700 x 635 x 1100 mm	2300 x 635 x 1100 mm
N2: Outer dim. W x D x H[1]	900 x 830 x 1750 mm	1200 x 830 x 1750 mm	1500 x 830 x 1750 mm	1800 x 830 x 1750 mm	2400 x 830 x 1750 mm
N2: Inner dim. W x D x H[1]	800 x 635 x 1375 mm	1100 x 635 x 1375 mm	1400 x 635 x 1375 mm	1700 x 635 x 1375 mm	2300 x 635 x 1375 mm
Front opening W x H	700 x 800 mm	920 x 800 mm	1220 x 800 mm	1520 x 800 mm	2200 x 800 mm
Height of underframe[2]	760/900 mm	760/900 mm	760/900 mm	760/900 mm	760/900 mm
Exhaust air	330 m³/h	410 m³/h	510 m³/h	610 m³/h	860 m³/h
Lighting[3]	2 x 18 W	2 x 18 W	2 x 36 W	2 x 36 W	2 x 58 W
Electrical connection	0.46 A; 230 V	0.46 A; 230 V	0.67 A; 230 V	0.67 A; 230 V	1.76 A; 230 V
Approx. weight of N1	65 kg	70 kg	75 kg	80 kg	90 kg

[1]Without underframe
[2]Seated/standing workstation
[3]LED lighting possible
Special designs possible

Technical data type EL..F2

Type	EL12F2	EL15F2	EL18F2
Outer dim. W x D x H[1]	1200 x 830 x 1750 mm	1500 x 830 x 1750 mm	1800 x 830 x 1750 mm
Inner dim. W x D x H[1]	1100 x 635 x 1375 mm	1400 x 635 x 1375 mm	1700 x 635 x 1375 mm
Front opening W x H (pane high)	920 x 800 mm	1220 x 800 mm	1520 x 800 mm
Open sash position	500/800 mm	500/800 mm	500/800 mm
Height of underframe[2]	760/900 mm	760/900 mm	760/900 mm
Exhaust air	410 m³/h	510 m³/h	610 m³/h
Lighting[3]	2 x 18 W	2 x 36 W	2 x 36 W
Electrical connection	0.46 A; 230 V	0.67 A; 230 V	0.67 A; 230 V
Weight approx.	166 kg	175 kg	184 kg

WIBObarrier® economy safety workstation.

Combines reliable protection and economic benefits.

The WIBObarrier® economy safety workstation is ergonomically designed and available in two designs: for product protection and for protection of persons and products.

Optimum product protection

The WIBObarrier® eco was specially designed for product protection. Terminal HEPA filters provide filtered, pure air in the working area and guarantee adherence to clean-room class ISO 5 in accordance with DIN EN ISO 14644. The entire ventilation, control and monitoring technology is integrated.

Optimum protection of person

The WIBObarrier® eco plus also has a hazardous substance suction device and is suitable for the protection of both products and persons. Despite smoother air flow, a robust retention capacity is achieved, derived from DIN EN 14175-3.
The WIBObarrier® eco plus can also be equipped with a front sash or a movable pane as an optional measure as protection against splashes and cross-contamination. The air flow system of the WIBObarrier® eco plus can operate self-sufficiently with circulating air, with room air supply/outgoing air or with supply air and exhaust air.

Exhaust air filter solutions

A two-step exhaust air filter from the prefilter and main filter can be installed beneath the work surface or in a separate filter housing. All exhaust air filters are easily accessible and can be changed without contamination (Bag In/Bag Out).

Design

The housing construction is made from an aluminum alloy with dual strength coating and is resistant to chemicals, solvents and acids. Construction sizes and shapes are variable, therefore the unit can be configured as a seated or standing workstation.
A design that conforms with ATEX is possible.

Customer-specific solutions

Weiss Pharmatechnik adapts all WIBObarrier® facilities to your individual requirements as a customer.

The WIBObarrier® principle.

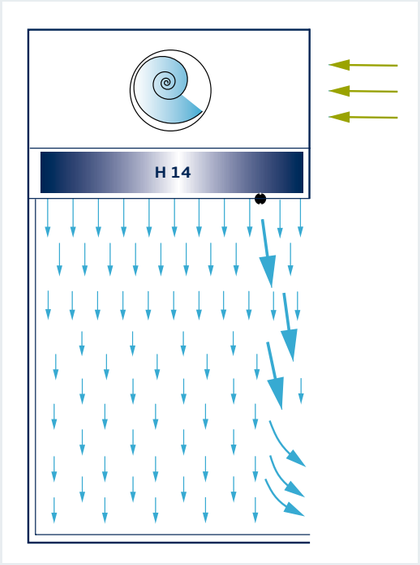
The WIBObarrier® economy safety workstation for a high level of protection of products, persons and the surrounding area.

Protection of persons

- **Protection of persons and the surrounding area**
  Harmful vapors, aerosols and dusts are safely dissipated.

Protection of products

- **Protection of products**
  HEPA-filtered clean air protects the product against pollutants and cross-contamination.



The WIBObarrier® economy safety workstation works with the tried-and-tested WIBObarrier® air flow principle. It is arranged for optimum product protection or protection of persons, products and the surrounding area, depending on the unit design.

The WIBObarrier® principle

A vertical pure air curtain separates the product area from the area where the persons are situated. Whilst the product area is flooded with low-turbulence, HEPA-filtered clean air, the pure air curtain barrier protects against turbulence, which can occur as a result of the employee's movements. The air curtain reliably ensures that contaminants from persons or the surrounding area cannot reach the objects to be processed.

The enhanced air flow system of the WIBObarrier® eco plus has an additional harmful substance suction device on the front and back, so that no airborne particles can emerge from the product area. Employees and the surrounding area are therefore protected against emerging emissions.

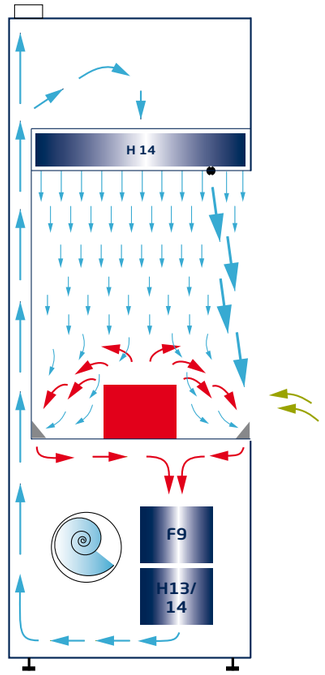
The WIBObarrier® air flow is precisely attuned to the WIBObarrier® nozzles in terms of speed, air quantities and flow direction. This perfect interaction guarantees an optimum needs-based flow pattern.

Protection by means of a clean room zone

With the assistance of the WIBObarrier® principle, expensive clean rooms and high clean room classes are often superfluous, as the clean room zone of the WIBObarrier® eco is sufficient for many tasks. Complete clean room lines can be created by stringing together several facilities in a simple manner. In order to achieve a higher protection class, the WIBObarrier® eco can be installed in grey or black zones and in pre-existing clean rooms.

All WIBObarrier® facilities guarantee a stable clean air quality of class ISO 5 in accordance with DIN EN ISO 14644-1. The WIBObarrier® eco plus with harmful substance suction device is suitable for hazardous substances of OEB 1-4.

(OEB – Operator Exposure Band – characterizes the extent of the toxicity of the substance on a containment scale from 1 to 6)



Optimum protection of products and persons due to

- the 3 zone principle
- Air nozzles that are attuned to one another
- Stable clean air curtain
- Suctioning of airborne particles
- Protection against turbulence

WIBObarrier® economy – special applications.

The right unit for every area.

WIBObarrier® economy forensics

- Workstation for forensics
- Clean air class ISO 8 acc. to DIN EN ISO 14644
- For protection of products and persons

WIBObarrier® economy forensics

The WIBObarrier® economy safety workstation was specially designed by Weiss Pharmatechnik for securing forensic evidence in the course of state criminal investigations. It guarantees a high level of protection of persons, products and the surrounding area and offers reliable protection against contaminants on the objects to be examined by employees and airborne particles during the examination. A range of accessories and special equipment is available for the unit.

WIBObarrier® economy medical technology

In medical technology, it is vital that work is carried out in a clean environment. Weiss Pharmatechnik offers safety workstations for the production of medical components, such as for coating implants, blood lines and medical products. Equipment includes front sash, pass-throughs and ionization rods in the technical area. The WIBObarrier® economy for medical technology offers reliable protection of persons, products and the surrounding area.

WIBObarrier® economy medical technology

- Coating of blood lines and implants
- Clean air class ISO 5 in accordance with DIN EN ISO 14644
- For protection of products and persons

WIBObarrier® economy system engineering

- Coating and vapor deposition of electronic components
- Clean air class ISO 7 acc. to DIN EN ISO 14644
- For product protection

WIBObarrier® economy system engineering

Weiss Pharmatechnik has developed various solutions for the system engineering investigations. For example, for the assembly of sensitive electronic switch elements or for coating and vapor deposition of electronic components. The WIBObarrier® economy for system engineering offers reliable product protection due to the HEPA-filtered clean air curtain. A front sash offers additional safety.

WIBObarrier® economy research laboratory

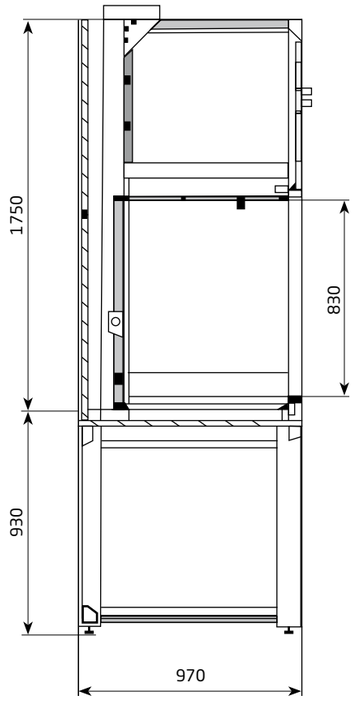
Weiss Pharmatechnik has designed special safety workstations for laboratories adhering to the special requirements in universities, institutes and research centers. These are equipped with sockets and data outlets in the back wall, so that laboratory weighing scales and other equipment can be integrated with ease. The WIBObarrier® economy for research laboratories guarantees reliable protection of persons, products and the surrounding area.

WIBObarrier® economy research laboratory

- Workstation with integrated laboratory equipment
- Clean air class ISO 8 in accordance with DIN EN ISO 14644
- For protection of products and persons

Convincing performance.

WIBObarrier® economy safety workstation: Technical data and accessories.

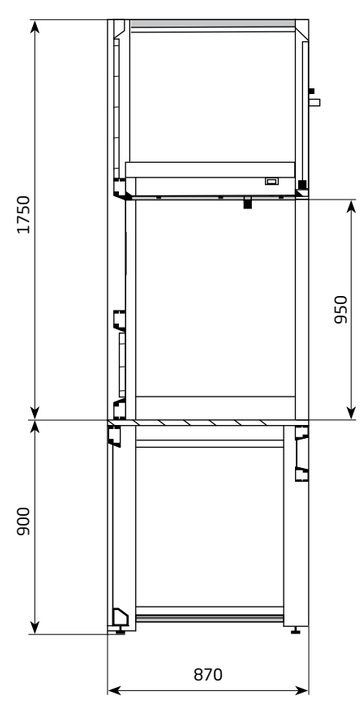


Customer-specific solutions

All of our products are adapted according to the individual customer requirements. Below you can see an overview of the most common measurements, accessories and details.

Accessories and options:

- Vertical front sash made from laminated safety glas with lock and alarm notification
- Two-step filter unit F9/H13 or H14 beneath the work surface or in an optional separate filter housing (for protection of persons and products)
- Filter can be changed without contamination
- Work surface made from waterproof, bonded chipboard with plastic coating, ceramic or stainless steel
- Washbasin and solvent basin made from stainless steel
- Sockets and media connections in the sides or back wall spars
- Water connections with shut-off valves
- Ionizing units in the technical area
- Pass-throughs and material transfer devices
- Tripod holder in the back wall
- Back wall design with laminated safety glass pane
- Horizontal movable protection pane made from tempered safety glass or polycarbonate
- Horizontal movable pane with glove ports as protection against cross-contamination
- Underframe as seated or standing workstation
- Front panels in the underframe with controls
- Floor cabinet for insertion into the under frame
- Hazardous substance floor cabinet in accordance with EN 14470-1 and many others.



WIBObarrier® eco plus for protection of persons, products and the surrounding area

Type	Outside width	Outside depth	Work surface depth inside	Outside height	Clear height inside	Supply air quantity	LED-lighting	Exhaust air volume
	mm	mm	mm	mm	mm	m³/h	Lux	m³/h
BAKVO 120/97	1200	970	755	1750	830	1000	≥ 750	1400
BAKVO 150/97	1500	970	755	1750	830	1250	≥ 750	1700
BAKVO 180/97	1800	970	755	1750	830	1500	≥ 750	2000
BAKVO 240/97	2400	970	755	1750	830	2000	≥ 750	2800

Also available in EX-proof design (BAKVE type) and other dimensions

WIBObarrier® eco for product protection

Type	Outside width	Outside depth	Work surface depth	Outside height	Clear height inside	Supply air volume	LED lighting
	mm	mm	mm	mm	mm	m³/h	Lux
BAPVO 120/87	1200	870	795	1750	905	1000	≥ 750
BAPVO 150/87	1500	870	795	1750	905	1250	≥ 750
BAPVO 180/87	1800	870	795	1750	905	1500	≥ 750
BAPVO 240/87	2400	870	795	1750	905	2000	≥ 750

Also available in EX-proof design (BAPVE type) and other dimensions

Microbiological workbenches.

Greater safety with the new BDK® SB II and the BDK® SBV II.

BDK® SB II safety workbench

The new, class II BDK safety workbench is one of the leading units on the market in terms of its design, functionality, ergonomics and economics. Components such as high-quality EC ventilators, LED lighting and touch display offer ease of use, excellent energy efficiency and low operating costs. The optimized fluid mechanics guarantee low resistance, which reduces the energy consumption of the ventilators. The innovative design enables high protection functions and flexibility in selecting the operating conditions. The laminar air flow from 0.45 m/s according to GMP can be easily reduced for other applications with a lower flow requirement. Operation in eco mode allows the energy consumption of the workbench to be reduced to a minimum.

Bright and glare-free lighting, quiet operating conditions, an ideal work surface height for varying sitting positions and the inclined front pane offer perfect ergonomics.

The TFT touch display with a clear, self-explanatory menu guide makes operation easier for your employees. The display of temperature, humidity and the implementation of particle monitoring are possible. Error messages are clearly marked. The unit also offers proposed solutions for remedying problems. PIN-protected user profiles and individual functions can be created in just a few steps. The BDK® SB II safety workbench guarantees protection of persons, of products and against cross-contamination in accordance with the microbiological test method according to EN 12469.

Cytostatic workbench BDK® SBV II

The BDK® SBV II is a 3-filter, class II cytostatic workbench. The cytostatic workbench is suitable for handling highly active substances, for preparation of cytostatics and for handling highly toxic CMR substances.

The new BDK® cytostatic workbench has all of the equipment features of the microbiological workbench BDK® SB II, but also has an additional HEPA cartridge filter beneath the work surface, which was specially developed for the 3-filter system. The new generation of the HEPA cartridge filter has markedly improved operating characteristics. Thanks to a newly developed suction nozzle and optimized air flow, the air flows through the HEPA cartridge filter uniformly, which considerably reduces the noise level and the energy consumption. What is more, test expenses and filter changes are halved.

The compact design of the new HEPA filters guarantee maximum legroom in the lower region of the unit. They are service friendly, can be changed avoiding contamination and fit in standard waste disposal bins or autoclaves.

The BDK® SBV II safety workbench is type-tested and certified in accordance with DIN EN 12469 and DIN 12980. What is more, the BDK® SBV II cytostatic workbench corresponds with the more stringent test requirements and the construction and functional requirements of the new DIN 12980:2017-05 for safety workbenches and insulators for cytostatics.

The all-round service package

In addition to a large range of products, Weiss Pharmatechnik offers you a comprehensive range of services attuned to your requirements. We are happy to offer you advice.

Comprehensively protected.

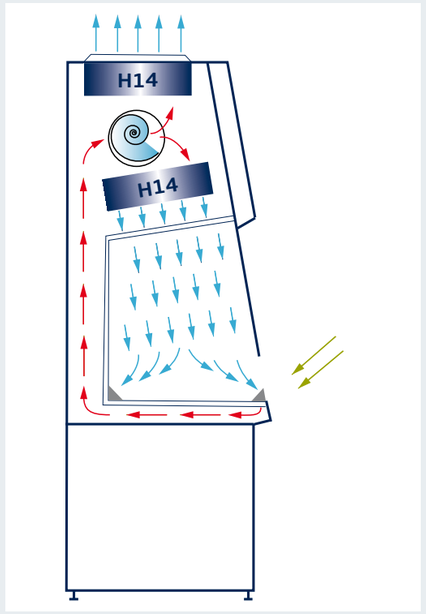
Microbiological workbenches BDK® SB II and BDK® SBV II for research centers, safety laboratories, pharmacies and manufacturing plants.

Protection of persons

- **Protection of persons and the surrounding area**
  Harmful vapors, aerosols and dusts are safely dissipated.

Protection of products

- **Protection of products**
  HEPA-filtered clean air protects the product against pollutants and cross-contamination.



The safety workbenches BDK® SB II and BDK® SBV II

protect the health of employees carrying out microbiological and genetic work. The class II workbenches are also designed for product protection and protection against cross-contamination within the working area. They are used in pharmacies, medicine and in microbiological laboratories of safety levels S1, S2, S3 and S4.

Safe air flow

Our BDK® SB II and BDK® SBV II workbenches function according to the principle of vertical low-turbulence displacement flow in combination with a recirculation principle. Within the scope of this, the air is cleaned upon entering and leaving the working area using the high-performance HEPA filter. The front side is partially open during operation. The upper part consists of a viewing window that can be opened. Below you can find the tested and safe work opening in this position.

EC ventilators that are controlled using a microprocessor suck the total air volume flow via the back return air duct and guide it into the low pressure plenum. The air volume flows are divided into recirculated air and exhaust air there. Around 70 percent of the entire air volume enters the working area as unidirectional, low-turbulence displacement flow via a HEPA recirculation filter. Airborne particles are transported directly to the suction openings without reverse flow.

The exhaust air, approx. 30 percent of the total air volume, flows through the HEPA exhaust air filter, the inflow-down-flow regulator and into the laboratory or optionally into a exhaust air system. The air inlet flow forms a stable and secure air barrier within the work opening. The excellent protective function is guaranteed with relatively low flow conditions.

The right equipment

Our microbiological safety workbench BDK® SB II in accordance with DIN EN 12469 is primarily designed for working with class S1 and S2 microbiological substances. With our BDK® SBV II cytostatic workbench in accordance with DIN 12980, an additional HEPA prefilter unit is integrated in the footwell of the working area, which makes it possible to work with highly active substances and microbiological class S3 and S4 substances.

The BDK SBV II cytostatic workbench also corresponds with the more stringent test requirements and the structural and functional requirements of the new DIN 12980:2017-05 for safety workbenches for the production of cytostatics.

Optimum protection of products and persons due to

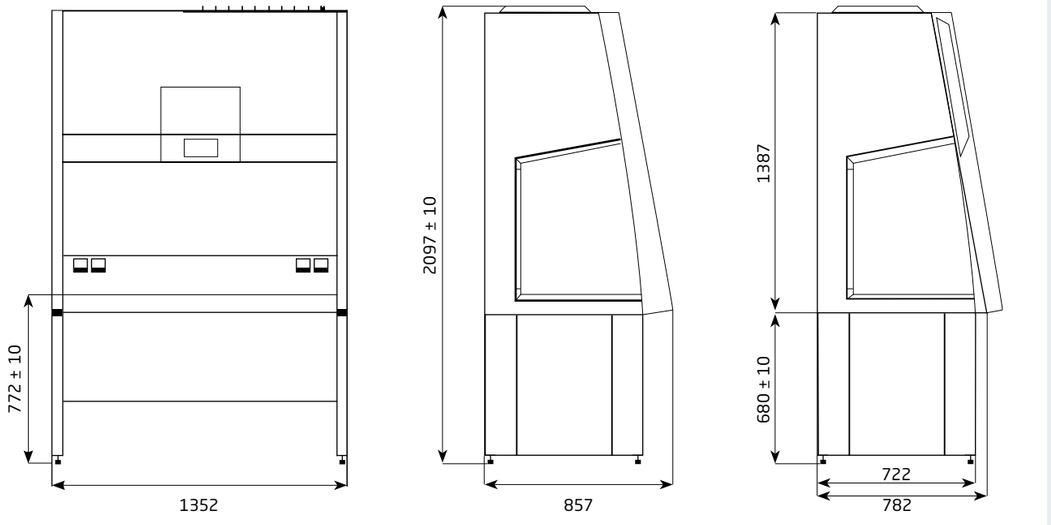
- Low-turbulence displacement flow
- Recirculation principle
- HEPA filter
- Extraction of emerging emissions

Convincing performance.

Technical data regarding microbiological workbenches BDK® SB II and BDK® SBV II.

The BDK® SB II and BDK® SBV II series are the new generation of safety workbenches and offer you a number of benefits:

- High energy efficiency
- Low exhaust air volumes
- Improved filter technology, longer filter lives
- User-friendly TFT touch display
- Simple menu guide
- Glare-free LED lighting
- Ergonomic design
- Recessed air intake grille
- Optimum arm support solution
- Optimum legroom in the 3-filter workbench
- Working area made entirely from stainless steel
- Easy to clean
- TÜV-approved in accordance with EN 12469 and DIN 12980
- Fulfils the new DIN 12980:2017-05 for cytostatic workbenches



BDK® SB II (2-filter systems)

Model	BDK®SB II 1200	BDK® II SB 1500	BDK®SB II 1800
Outer dimensions W x H x D	1352 x 2097±10 x 857 mm	1654 x 2097±10 x 857 mm	1957 x 2097±10 x 857 mm
Working area W x H x D	1257 x 640-700 x 600 mm	1559 x 640-700 x 600 mm	1862 x 640-700 x 600 mm
Work opening W x H	1257 x 180 mm	1559 x 180 mm	1862 x 180 mm
Front opening, pane raised	450 ± 50 mm	450 ± 50 mm	450 ± 50 mm
Work surface height	772 ± 10 mm	772 ± 10 mm	772 ± 10 mm
Weight	312 kg	375 kg	400 kg
Nominal voltage/nominal frequency	230 V AC/50 Hz		
Power consumption GMP/ECO	160/112 W	241/220 W	214/172 W
Sound pressure level ECO/GMP	≥ 49.9/54.8 dB(A)	≥ 54.0/56.9 dB(A)	≥ 51.5/54.5 dB(A)
Nominal illuminance	0-1100 lux	0-1100 lux	0-1100 lux
Filter class	HEPA filter H 14, degree of separation ≥ 99.995		
Clean room class in working area	EU GMP guideline: A; DIN EN ISO 14644-1: ISO class 5		
Exhaust or supply air volume flow	approx. 330 m³/h	approx. 410 m³/h	approx. 485 m³/h
Exhaust air volume flow (with line disruption)	450 ± 50 m³/h	525 ± 50 m³/h	600 ± 50 m³/h
Working area	material stainless steel material 1.4301, average roughness Ra ≈ 1.6 µm		
Housing material	powder-coated 1.5 mm strong zinc or steel sheet no.: 1.0330, white RAL 9003 matt		

BDK® SBV II (3-filter systems)

Model	BDK® SBV II 1200	BDK® SBV II 1800
Outer dimensions W x H x D	1352 x 2097±10 x 857 mm	1957 x 2097±10 x 857 mm
Working area W x H x D	1257 x 640-700 x 600 mm	1862 x 640-700 x 600 mm
Work opening W x H	1257 x 180 mm	1862 x 180 mm
Front opening, pane raised	450 ± 50 mm	450 ± 50 mm
Work surface height	772 ± 10 mm	772 ± 10 mm
Weight	325 kg	426 kg
Nominal voltage/nominal frequency	230 V AC/50 Hz	
Power consumption GMP/ECO	280/190 W	530/335 W
Sound pressure level ECO/GMP	≥ 54.0/56.6 dB(A)	≥ 55.8/56.9 dB(A)
Nominal illuminance	0-1100 lux	0-1100 lux
Filter class	HEPA filter H 14, degree of separation ≥ 99.995	
Clean room class in working area	EU GMP guideline: A; DIN EN ISO 14644-1: ISO class 5	
Exhaust or supply air volume flow	approx. 330 m³/h	approx. 485 m³/h
Exhaust air volume flow (with line disruption)	450 ± 50 m³/h	600 ± 50 m³/h
Working area	material stainless steel material 1.4301, average roughness Ra ≈ 1.6 µm	
Housing material	powder-coated 1.5 mm strong zinc or steel sheet no.: 1.0330, white RAL 9003 matt	

Safety workstations HFC^{evo} for laboratories.

Reliability and economic efficiency in the workplace.

Optimum protection of persons and the surrounding area

The workbench HFC^{evo} for laboratories is ideal for working with active, toxic and pulverulent substances and materials. This includes weighing work (micro and semi-microbalances according to USP requirements), emptying work, sampling, amongst others. The consistent dual HEPA filter insert and the optimized flow design guarantee effective protection against emerging emissions. The bright, transparent working area and an ergonomically optimized design make it possible to carry out work in a relaxed manner.

Optimum filter system

The main filter can be qualified when installed with the help of DEHS filter scanning. The positive pressure plenum ensures that the prefilter is dynamically sealed and that contaminated air is solely conducted via the HEPA filter. Without interrupting normal oprations, the innovative bag-out filter change is carried out in the work cabin without any problems and in a contamination-low manner.

Minimum noise level

Work on the safety workbench HFC^{evo} is therefore also particularly comfortable, as you can work in a quieter atmosphere compared to other units. Maximum smooth operation with only 52 dB (A) is guaranteed by the optimum air flow and noise reduction measures.

Guaranteed safety

Protection of persons and the environment was tested and certified according to EN 14175-3 for laboratory fume cupboards. Within the scope of an on-site SMEPAC test, evidence of protection against an outbreak with 1 µg/m3 respiratory air was measured with Naproxen.

Customer-specific solutions

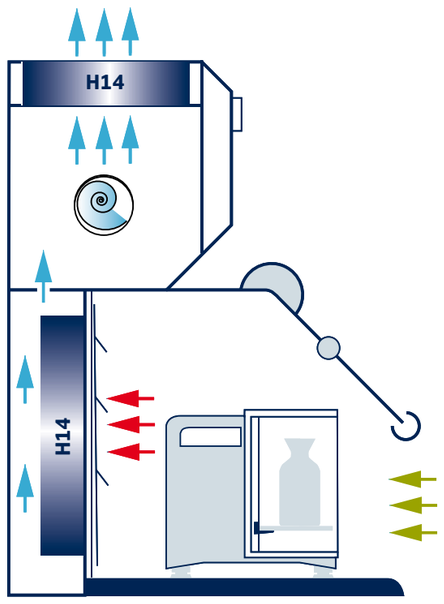
At Weiss Pharmatechnik, we focus on our customer's individual requirements and find the perfect solution for your company.

Safety first.

Safety workstations HFC^{evo} for the laboratory sector.

Protection of per-

- **Protection of persons and the surrounding area**
  Harmful vapors, aerosols and dusts are safely dissipated.



Safe solutions

Responsible handling of chemical and pharmaceutical materials and substances in laboratories requires safe workstations. This particularly applies to work involving weighing. The safety workbench HFC^{evo} by Weiss Pharmatechnik offers you reliable protection of persons and the surrounding area.

The air flow principle

Air flows from outside into the working area in containment. The air flow directed inwards effectively protects employees and the surrounding area against the emergence of airborne particles and aerosols. In addition to the ideal flow design, the safety workstation HFC^{evo} is equipped with two HEPA filters (H14) arranged in series, which offers additional safety for the system.

Clear control system

All HFC^{evo} safety workstations can be easily and intuitively operated using the HMI controller. Entries are made via a touchscreen, with which all important adjustments can be made with ease.

Constant volume flow

In order to continue to protect your employees over a number of operating hours, the integrated ventilator is automatically readjusted if the filter generates a larger loss in pressure, e.g. in the case of increasing filter strain.

Ergonomic and easy to use

The sloping front pane offers employees an excellent view of the work surface and makes it possible to adopt a comfortable sitting position. The front panel of all unit types in this series can be opened so that larger containers can be inserted.

Glare-free lighting

The energy-saving LED lights ensure that the working area is pleasantly and brightly illuminated.

Optimum protection of persons by means of

- Perfect air flow
- Dual HEPA filters
- Ventilator regulation
- Bag-out filter system

The choice is yours.

Other units from the HFC^{evo} series.

Safety workbench HFC^{evo} 1200 MT

- For particularly precise weighing work
- Low vibration
- Free work surface

Safety workbench HFC^{evo} 1200 MT

The safety workstation HFC^{evo} 1200 MT combines precise weighing technology with reliable protection of persons and the surrounding area. It is suitable for work involving active and toxic substances. In addition to the device features of the basic version, the MT offers additional advantages for use with high resolution scales: Scale table and working area are decoupled from one another by a table-in-table solution. This prevents the transfer of vibrations, which facilitates work with high-resolution scales as per USP requirements.

Safety workbench HFC^{evo} 1200 Patho

This safety workstation offers reliable protection when working in pathology and histology laboratories against inhaling substances that are harmful to your health. The high-performance table extraction prevents the release of toxic substances. Solvents and formaldehyde vapors are effectively removed from the exhaust air via an active carbon filter. The working area is ergonomically designed and made from chrome steel and glass, and is easy to clean. The energy-saving LED lighting guarantees good illumination of the working area.

Safety workbench HFC^{evo} 1200 Patho

- For pathologies and histological examinations
- Absorbs solvent vapors and formaldehyde
- Safe protection due to HEPA filter technology

Safety workbench HFC^{evo} 1300

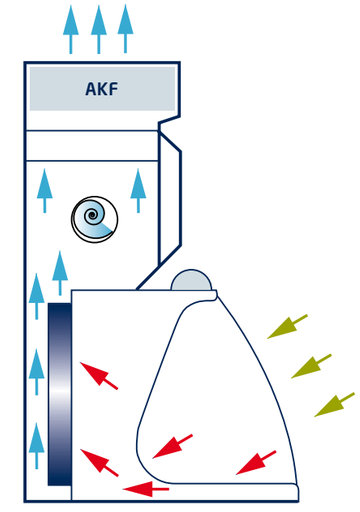
- Larger interior
- Interior working height 900 mm
- Front opening up to 830 mm

Safety workstation HFC^{evo} 1300

With its larger interior, the HFC^{evo} 1300 offers even safer conditions. All features of the basic device have been implemented in this version with a considerably larger interior. The working height of the interior has been increased from 600 mm to approx. 900 mm. Devices and containers with a total height of approx. 830 mm can be easily inserted through the enlarged front opening. The safety workstation HFC^{evo} 1300 is suitable for emptying work, sampling, weighing large quantities of substances and working with a sifting machine.

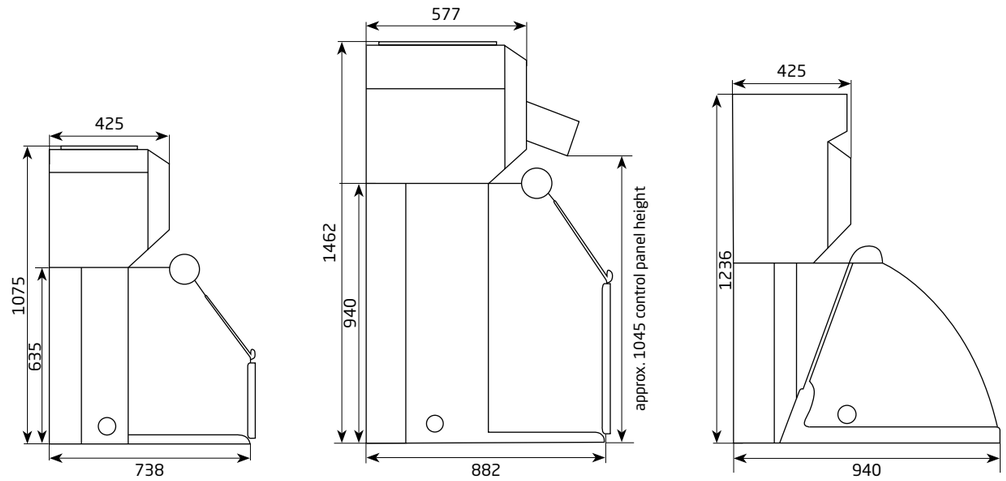
The air flow of the HFC^{evo} 1200 Patho

The air flows, which are directed downwards and towards the rear, guide the released solvent vapors safely away from the user. This protective air flow is produced by a low-noise ventilator. HEPA (H14) filters are placed both in front of and behind the ventilator in order to almost completely remove aerosols and particles from the exhaust air. Active carbon filter cassettes collect the solvent vapors that are removed from the air. The cassettes contain a special type of carbon that adsorbs all common solvents and has been prepared for uses with formaldehyde.



Convincing performance.

Technical data of the HFC^{evo} safety workstations.



HFC^{evo} 900/1200 MT | HFC^{evo} 1300 | HFC^{evo} Patho

Technical data

Series		HFC^{evo} 900 (-MT)	HFC^{evo} 1200 (-MT)	HFC^{evo} 1300	HFC^{evo} 1200 Patho
Outer dimensions (W x D x H) (Height w. active carbon kit) (Height w. draught diverter)	mm mm mm	900 x 740 x 1075 H + 160 H + 110	1200 x 740 x 1075 H + 160 H + 110	1200 x 885 x 1465 H + 370 H + 110	1210 x 940 x 1230 inkl. H + 110
Underframe (W x D x H) Tolerance H:	mm	852 x 710 x 760 Toleranz H: +40/-10	1152 x 710 x 760 Toleranz H: +40/-10	1152 x 935 x 760 Toleranz H: +40/-10	1152 x 930 x 760 Toleranz H: +40/-10
Inner dimensions of working area (W x D x H)	mm	840 x 545 x 600	1140 x 545 x 600	1140 x 660 x 905	1130 x 660 x 570
Height of work opening with: closed front pane open front pane	 mm mm	 270 500	 270 500	 545 835	
Separation efficiency of HEPA H 14 with	% µm	99.995 >0,3	99.995 >0,3	99.995 >0,3	99.995 >0,3
intake/exhaust air volume flow	m³/h	280	380	800	380
Air speed: Operation Idle mode	1 m/s m/s	 0.35 0.2	 0.35 0.2	 0.35 0.2	 0.35 0.2
Weight approx.	kg	175/230 (MT)	215/270 (MT)	310	255
Electrical connection	V/Hz	230/50	230/50	230/50	230/50
Power consumption approx.	W	170	215	400	215
Light intensity	Lux	> 700	> 700	> 700	> 700
Noise level	dB(A)	49	51	52	52

Accessories and options for greater flexibility:

- Active carbon kit for working with solvents
- Solvent sensor to detect saturation of the active carbon
- Glare-free and efficient LED lighting
- Noise reduction due to optimized air flow and smooth EC ventilators
- Work surface made from glazed technical ceramics
- High resistance, shock resistance and scratch resistance of the work surface
- Leak protection due to surrounding beaded edge, making the work surface easy to clean
- Disposal unit for low-contamination handling of waste and samples
- Ionization unit against electrostatic charging of powders and devices (only available in combination with underframe)
- Outgoing air connection diverts the draught when connecting to building exhaust air
- Pass-throughs and cable bushings
- Extensive underframe for more legroom and stability (stable weighing results)
- Electric, height-adjustable underframe

Passionately innovative.

We work in partnership to support companies in research, development, production and quality assurance. With 22 companies in 15 countries at 40 locations.

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Test it. Heat it. Cool it.

Environmental Simulation

The first choice for engineers and researchers for innovative, safe environmental simulation facilities. In fast motion, our test systems can simulate all the influences in the world as well as for instance in space. In temperature, climate, corrosion, dust or combined stress tests. With a very high degree of reproducibility and precision.

Climate Technology, Air Dehumidification, Clean Rooms

As the leading provider of clean rooms, climate technology and air dehumidification, we consistently ensure optimal climatic conditions for people and machines. For industrial production processes, in hospitals, mobile operation tents or in the field of information and telecommunications technology. From project planning to implementation.

Heating Technology

Experienced engineers and designers develop, plan and produce high-quality, reliable heating technology systems for a broad range of applications from heating and drying cabinets and microwave systems to industrial furnaces.

Clean Air and Containment Systems

With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators and air locks.

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