



Microbiological Safety Cabinet

Excellent

Personal and Product Protection



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We create functional solutions for complex issues

Philosophy

As the specialist in clean air, Interflow creates functional solutions for complex air management issues. For fifty years we have been delivering quality by paying close attention to safety, comfort, ease of use, durability and flexibility. These concepts are intertwined with our norms and values, determining our way of thinking and working.

Our microbiological safety cabinets (msc) are the result of this vision. They provide both personal and product protection. They guarantee a safe and clean working environment. Naturally, we are proud of the advanced technology, but above all we value the safety they offer persons as well as products. A high-quality end result starts with a safe and clean working area. Our high-tech microbiological safety cabinets achieve this for you.

- Safety
- Comfort
- Ease of Use
- Durability
- Flexibility

About Interflow

Interflow excels in offering personal and product protection based on air control. We have been designing, manufacturing, installing, validating and managing laminar air flow units, cleanrooms and operating rooms for fifty years. Our consultants, engineers and technicians are experts in this specialist field.

Highest marketing rate

Research by the Netherlands Industrial Market Research Agency has shown for four years in a row that Interflow's laminar air flow units are rated as best on quality and price-quality ratio. Our customers are enthusiastic about the delivery reliability and the service provided. They give the highest rating on both commercial and technical support.

With Interflow you choose an honest company that puts its ideas into practice with passion and inspiration. We involve our customers from the very start, this creates clarity. This ensures we always deliver the right solution. We also look beyond today and anticipate market developments.

Broad expertise

We have the expertise to deliver complicated projects at the highest quality. Our core markets are pharmaceuticals, high-tech industry, research centers, healthcare and agro- industry & Food.

- Fifty years of experience
- Familiar with the work processes and the challenges of the user
- Market research confirms quality



We are flexible and can achieve customer-specific wishes

Dutch Production Facility

Interflow has a production facility of approximately 5,000m² in the Netherlands, where all our laminar airflow units are manufactured, therefore we are able to guarantee the quality and delivery time of our products. We are not dependent on external suppliers. This also gives us the opportunity to be flexible with design solutions that can easily include bespoke customer specifications when required.

In Wieringerwerf, North Holland, our production facility is adjacent to our office. So we have all the knowledge, expertise, design and manufacture facilities under one roof. This makes our products purely Dutch. Our work processes are in line with strict safety standards. As a customer we assign to you a single contact person who knows all the details of your project and whom you can ask all your questions. These factors combine to ensure a fast, efficient and clear process.

Before delivery, each unit undergoes extensive testing in our production facility. This includes a visual inspection, a function test and an air speed measurement. This is to demonstrate that the unit complies with specification, the applicable laws and regulations and the strict quality requirements of Interflow. When the unit is delivered, an extensive measurement and validation protocol is carried out once installed, in the environment in which the unit is located, so that it is ready for use.

- One point of contact
- Dutch Production Facility
- Guarantees on quality and delivery time
- Flexible in customer-specific wishes



- Meets all applicable requirements set in the ISO and / or GMP standards
- Conform NEN-EN 12469 and WHO Laboratory biosafety manual - Third edition
- Fail-safe design and hermetic bonding give a unique, extra guarantee of product safety

Product and Personal Protection

In a microbiological safety cabinet, according to NEN-EN-ISO 14644 an ISO 5 classified air flows through the work area of the unit. This laminar air flow guides the particles that are released in the work area downwards. The particles are extracted through grids around the worktop. A HEPA filter, type H14 cleans this air, which is then safely and cleanly discharged into the local environment or an appropriate ventilation system installed into the building. Our microbiological safety cabinets meet the strictest safety requirements.

Thanks to our innovative solutions, the user and the environment are even better protected. Interflow's microbiological safety cabinets are hermetically glued. This technique reduces the possibility of a leak and thus increases the overall safety of the units. This is possible thanks to the use of high pressure laminate, stainless steel and laminated glass that does not shatter in the event of damage.

Fail-safe

By creating air-pressure differences within the microbiological safety cabinets, you and your product are protected even in the event of an emergency. In such a situation, polluted air cannot reach the workspace or the environment. The unit will then automatically fall into the safe operating position and cannot be used until the unsafe situation has been resolved.

Audio alarm

The Interflow microbiological safety cabinets are equipped with a robust audio alarm. As soon as there is a flow failure (inflow or downflow) for more than a minute, the user hears the alarm that immediately indicates that there is an emergency. The alarm will operate even when the unit is not in safe operating mode. The combination of the visual and audible alarm gives the highest guarantee of safety.



Comfort and Ease of Use increase job satisfaction

A shortage or a surplus of light, sound and/or heat can be unpleasant or even annoying during the use of a laminar flow unit. Interflow has paid attention to ergonomics and adaptability in the design of the microbiological safety cabinets.

There is a constant air flow within the work area, which will not affect you as a user. Our microbiological safety cabinets are the quietest on the market at 47 dBA*. This low noise level is possible thanks to the use of sound-absorbing materials, the prevention of vibrations and the efficient placement of the fan(s) and filters. The LED lighting provides homogeneous light that can be adjusted as desired. There are no disturbing reflections or glare in the work area. The use of energy-efficient fan(s) ensures a low heat load.

The worktop has a round finish. There are no sharp edges for the users arms and legs. The base is available in sitting and standing height. There is also an electrically adjustable variant that guarantees a comfortable working position for everyone.

- Most silent in the market *
- Homogeneous light
- Low heat load
- Sufficient arm and leg room
- Ergonomic

* Measured under ISO conditions

Ease of Use

The latest generation of microbiological safety cabinets from Interflow have a multifunctional touchscreen. The simplicity with which settings - such as the day and night mode and the light system - can be adjusted is great. The screen also shows important operating information, including error messages.

Effortless cleaning

Safety cabinets must be cleaned regularly. Fortunately, thanks to our clever design, this is a simple operation. The unique sliding folding window construction makes it possible to tilt the glass plate down with little force and without technical aids. This makes it possible to clean the entire surface by hand from above. The worktop support is another inventive solution from Interflow that increases ease of use. This addition leaves both hands free to clean the drip tray quickly and thoroughly. The materials used, high pressure laminate and stainless steel, are easy to clean and resistant to almost all cleaning agents. The safety cabinet contains several filters. The first, front filter can be replaced independently and without risk of contamination.



A high-quality end result starts with a clean work area

- Easy to operate
- Effortless to clean
- Easy to replace filter

Ease of Use

Integrated touchscreen

A touchscreen enhances the ease of use of the microbiological safety cabinet. The central control system can be controlled via this programmable screen. You can adjust various settings as desired with a finger. The screen is designed in such a way that it provides an overview and is easy to operate. In addition, all important information is displayed on it in real time.

Main options:

- Adjusting the light modes
- Setting an energy-efficient day/night control
- Setting and displaying a maintenance mode
- Possibility to place control behind your own chosen pin code
- History of sixty error messages. This makes it possible to check which malfunctions occurred when and for what duration



Durability



The units are fully recyclable



Durability

The microbiological safety cabinets from Interflow are equipped with energy-efficient LED lighting and direct current fans. As a result, less heat is produced, which in turn results in smaller cooling installations and an even lower energy burden. The units also have an energy-saving day and night mode control.

We also combat energy waste by minimizing air resistances and turbulence in the safety cabinets. We achieve the low air resistance by finishing the units smoothly and by using filters with the largest possible filter surface area. Vortices are prevented thanks to the low air speeds and the innovative use of air bulkheads.

The strong and durable safety cabinets are made of high-quality materials. The robust high pressure laminate is resistant to impacts and scratches and resistant to various chemicals. The units are fully recyclable. The production of the units is based on the Lean method, with extra attention being paid to sustainable choice of materials and the prevention of waste and energy consumption.

Interflow uses the Lean Method of Trias Energetica system to achieve the most energy-efficient design of its cross flow units. Trias Energetica distinguishes three steps:

1. Limit energy consumption by preventing waste;
2. Make maximum use of energy from sustainable sources, such as wind, water and solar energy;
3. Use fossil fuels as efficiently as possible to meet the remaining energy needs.

Customisation



Customisation

The microbiological safety cabinets can be equipped with various options and functionalities that further increase ease of use. We are happy to discuss your requirements and to advise you.

We build our microbiological safety cabinets in a modular way: Therefore they can be easily adapted for future requirements and can maintain their high quality. In order to optimally use the safety cabinet and options, we provide user training courses to help you.

Customisation

Sometimes existing systems do not provide a solution. Certain situations - such as working with several hazardous substances - require specific, tailor-made solutions. Interflow offers these types of units in the form of specials. Ask our Advisor about the possibilities.

- Easy to operate
- Flexibility thanks to modular construction
- Room for future modifications
- All the benefits of a Dutch partner
- Available in accordance with WHO standards types A1, A2, B1 and B2

Options

- Visual alarm
- Integrated touchscreen
- 220V- / USB- / data input
- Infusion rod
- Integrated weighing stone
- Connectivity-system

Visual alarm

Interflow's latest development is the visual alarm. If there is a fault, the standard LED lighting dims. The work area is given a red glow instead. The user immediately sees through the color scheme which unit is available and which is not. This system takes the level of safety of our microbiological safety cabinets to an even higher level.



Double safety gives peace of mind

Options



Interflow has been delivering the highest quality for fifty years

Options

Integrated touchscreen

An integrated screen is desirable if you want to enter or read data during your work. With this monitor you maintain an overview of the work area, and you work safely, efficiently and ergonomically. It is possible to place a computer that controls the screen in the microbiological safety cabinet. This space can be extracted, so that no polluting particles end up in the work environment.

220V- / USB- /data input

It is good to consider in advance about which inputs you think you will need. This can vary from extra power connections to USB connections. Ask our Advisor about the various options.



Options

Infusion rod

If you regularly work with infusion bags within the protected area, an integrated IV rod is a great added benefit. You can continue to work in a clean, safe and organized manner with this IV rod. This provides more comfort and ease of use.

Integrated weighing stone

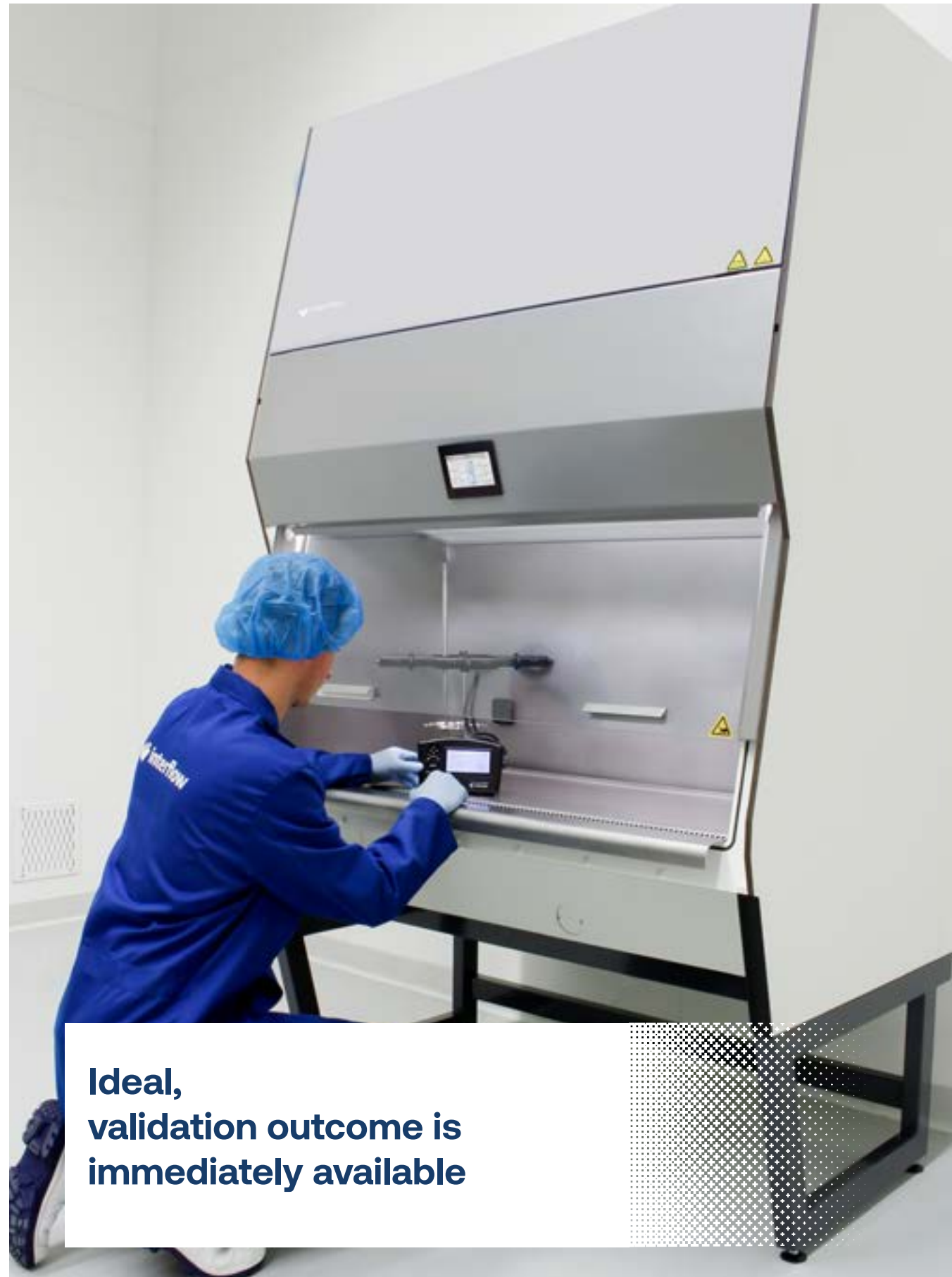
Scales are accurate, but unfortunately also vulnerable devices. If you have to weigh regularly in the protected work area, we recommend having a weighing stone placed in the microbiological safety cabinet. This results in more accurate and stable weighings. In addition, this integration contributes to a cleaner and more organized work area, without unnecessary cables and devices.



Validation

To rule out dangerous and noxious situations, microbiological safety cabinets must be regularly validated. Interflow has the knowledge, expertise and experience to deliver this service. We check whether your units meet all requirements and criteria.

Our specialists measure whether your microbiological safety cabinets can still achieve safe and clean working environments over time. Continuity and flexibility are essential concepts in this. The validation results are available immediately after the measurements. This makes it possible to quickly and well-founded consider whether or not to put the units into operation.



**Ideal,
validation outcome is
immediately available**

Management and Maintenance

In view of personal and product protection, you want to prevent dangerous and harmful situations at all times. A microbiological safety cabinet that is regularly checked by an expert maintains its high quality and operation. This improves uptime and lifespan.

Interflow is the partner to take care of the maintenance of your units. A well thought-out maintenance plan leads to high operational reliability. Thanks to our latest option - the connectivity system - we can remotely view and assess fault reports and resolve problems faster.

This technique limits the downtime of the microbiological safety cabinet. Due to the modular construction of the units, they are optimally prepared for the future. This makes it possible to make modifications after delivery. For example, changes in legislation and regulations may necessitate adjustments.

- Problems fixed faster thanks to connectivity system
- Modular construction allows for modifications
- A well thought-out maintenance plan results in a higher uptime and longer lifespan

Resume

Product and Personal protection

Protects the product from external influences and protects the users against contamination by particles released into the work area.

- Manufactured from high quality HPL (body) and stainless steel 304 (workspace)
- Standard stainless steel worktop (stainless steel 316)
- Completely smooth both internally and externally
- Customised solutions possible
- On-site installation and validation

Safe to use

- Complies with laws and regulations according to NEN 12469 or WHO standard
- Deployable in accordance with GMP standards
- CE marking
- Fail-safe design
- Hermetic bonding

Comfortable

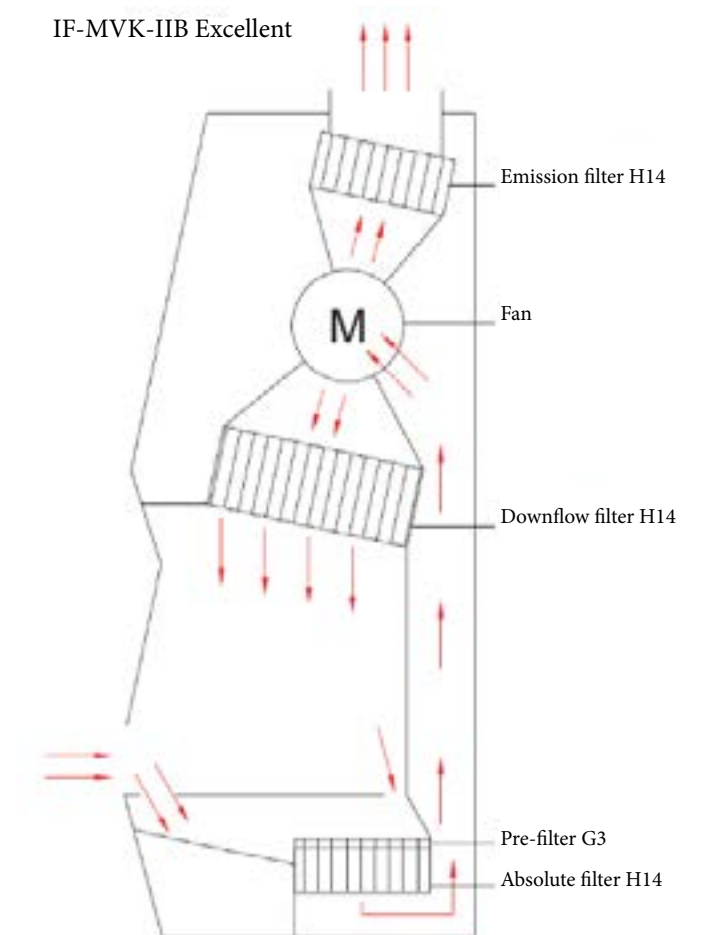
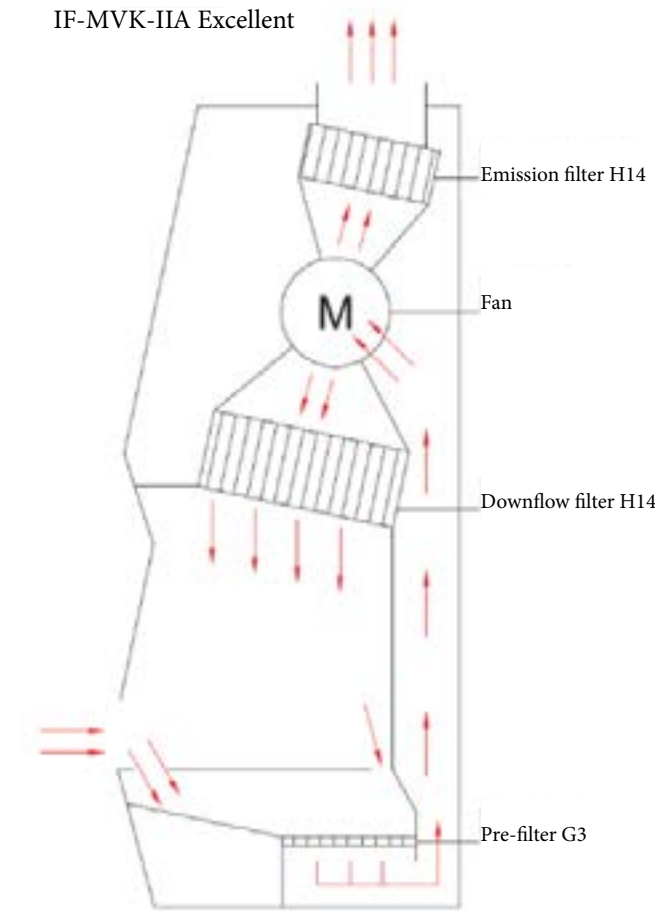
- Most silent in the market
- Homogeneous light
- Low heat load
- Ergonomic top design
- Height adjustable by means of electric frame

User-friendly

- Easy to operate
- Effortless cleaning
- Filters at the front are easy to replace
- Optimal air distribution
- Plug-and-play
- Continuous control of air velocity, always the right flow rate

Sustainable

- Up to 70% reduction in energy consumption thanks to energy-saving EC motor
- Energy-saving LED lighting
- Day and night switch as standard





Interflow B.V.

De Stek 15
1771 SP Wieringerwerf Nederland
T +31 (0)227 60 28 44
E info@interflow.nl
W www.interflow.nl

Want to know more about the possibilities?
Contact our Advisor:

Arjan van der Scheer
M +31 (0)6 53 54 12 05
E arjan.vander.scheer@interflow.nl

Niek Nuijten
M +31 (0)6 27 36 73 75
E niek.nuijten@interflow.nl