

# EXPLORIS





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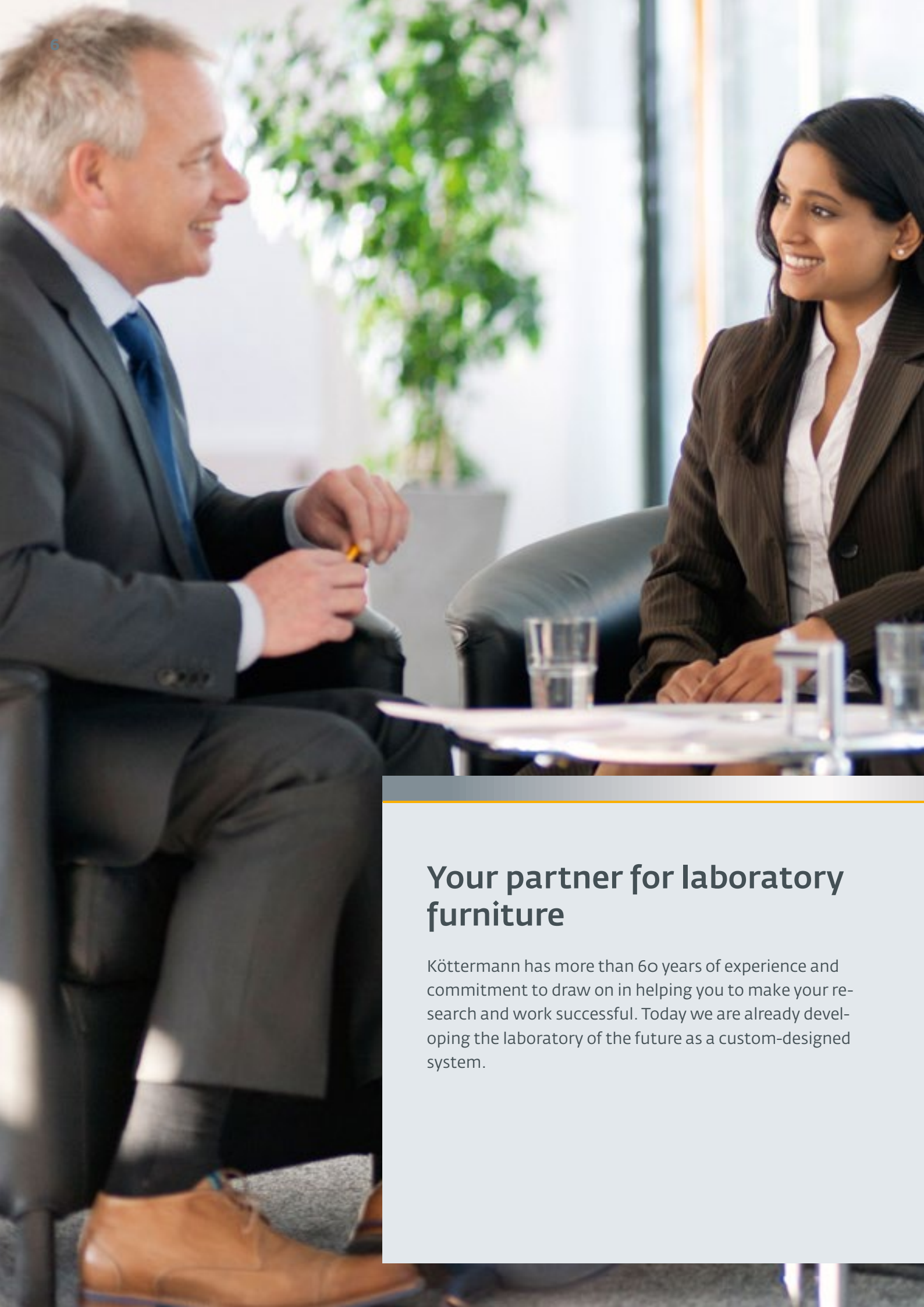
KÖTTTE

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m l a b o r

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# EXPLORIS® – OUR NEW SYSTEMLABOR





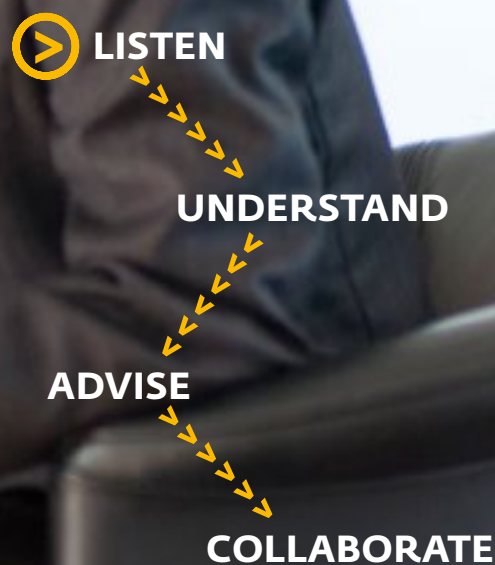
## Your partner for laboratory furniture

Köttermann has more than 60 years of experience and commitment to draw on in helping you to make your research and work successful. Today we are already developing the laboratory of the future as a custom-designed system.



# WE DO OUR BEST TO HELP YOU TO BE SUCCESSFUL

We will work together with you to meet your individual laboratory requirements.



## QUALITY "MADE IN GERMANY"

Our original small workshop has become a globally active enterprise. We have developed our Systemlabor EXPLORIS® exclusively in Germany. This is where we can both set and satisfy the highest levels of technical standards for you. Our laboratory furniture consists of high-tech products and ensures a high level of protection for your investment. And we provide our manufacturer's guarantee for this.

## WE ACCEPT RESPONSIBILITY

"We care about your safety". This is not just a slogan but a promise which is our number one priority because you must always be sure that you are well protected in your workplace. Köttermann understands the procedures in a laboratory. Through close cooperation with our customers and suppliers we are continually learning and evaluating our internal work processes. We are also constantly working on improvements in relation to environmental protection and the protection of resources. Operating globally, as Köttermann does, brings with it responsibility. We accept this by upholding our values and being aware of our traditions.

we care  
about your **safety**



## A trusting partnership

Partnership is where it all begins – but for us it never ends. Together with you we develop intelligent solutions for your laboratory. You can put your trust in us.





# TOGETHER AS ONE

Our company's many years of experience together with the comprehensive know-how of our employees have made us the leading innovator in the industry. You can benefit from this expert knowledge.

## EXPERTISE CREATES SPACE

Köttermann develops optimum furniture solutions for laboratories, but we are also grateful to our customers for providing their crucial input because we know that all laboratories are different.

You formulate your technical requirements and outline the challenges you are facing. Our experts are then at your side from the very beginning of the design process. As a customer you are immediately integrated into the entire planning and operational procedures. We develop, implement and produce. You have the freedom to control and decide.

## THE PROCESS-ORIENTED LABORATORY

Our laboratory system is carefully thought out down to the last detail. The proof is in thousands of laboratories worldwide with which we have conducted successful business. But it is our customers who decide what is attractive and above all what is ergonomic, process-oriented and safe. To implement your requirements, we analyse your work processes on site and develop a plan which is tailored to your needs and supports these processes.

As your professional partner it goes without saying that we take into account all relevant guidelines and regulations that may apply. At the end of the process you have a flexible laboratory which is tailored to your current and future requirements. One that simply suits you.



# »THIS HAS REALLY PAID OFF FOR US«

Ronald Kars  
Laboratory Manager  
Neste Oil, Netherlands

## **PREMIUM QUALITY AND PROFESSIONAL KNOW-HOW**

"Neste Oil chose to be supplied by Köttermann because of the superior quality of its laboratory furniture. Köttermann's fire protection materials really stood out for us as well. Köttermann's commitment to environmental protection as well as its excellent project management also played a large part in helping us to make a final choice of supplier. The professional know-how of Köttermann's experts helped us to keep our costs down in a sustainable way across many areas. And thanks to its technical planning using drawings and 3-D models we have been able to structure our laboratory logistics in a much better way."

Ronald Kars  
Laboratory Manager  
Neste Oil, Netherlands



## PROVIDING SERVICE AND SOLUTIONS WORLDWIDE

"We were not sure whether Köttermann would be able to fulfil our stringent requirements in relation to quality, health protection, safety and environmental protection. But it was already clear from our very first discussion with them that Köttermann's innovative technology could meet our expectations for the future. Experts who are always ready to help, detailed information, together with long-lasting and effective product quality, all go to prove that Köttermann is currently the best choice for us! We are also very happy with their follow-up care which they provided despite being such a great distance from us. Köttermann really does provide worldwide service and solutions!"

*Dr. Cho, YoungKown*  
QHSE Department Manager  
Bayer Crop Science, Korea

## DESIGN, SAFETY AND A GUARANTEE

"In choosing the laboratory system for our Biomedicine Research Centre at the University of Granada, the design, safety and guarantee provided by Köttermann were the decisive factors which made us choose them. In all the phases from planning through to delivery, set-up and installation of the laboratory, the experts from Köttermann provided us with professional support and thus made a contribution to fulfilling the requirements of the laboratory's users."

*D. José Mariano Ruíz de Almodóvar Rivera*  
Director of the Biomedicine Research Centre  
University of Granada, Spain

# A FULLY PERSONAL SERVICE FOR YOU



## Our team

Many faces combine to make a single vision – that of Köttermann. Hidden behind the united team are many different people and characters. Working together we start each day afresh to achieve our most important objective: to provide you with the very best products and services in the field of laboratory systems.



Every member of our team, from the trainee to the boss has a duty to serve our customers with motivation, hard work and personal expertise. This means that we all feel we are bound by our company's tradition of maintaining our unwavering values.



*From left to right: Ted Beilby (Technical Advisor), Knut Lischka (Director Research & Development), Birgit Morgenstern (Senior Planner – Laboratory Design and Engineering), Andreas Berger (Director National Sales), Sandra Wieczorek (Trainee Marketing), Dr. Frank Buchholz (Product Manager), Frank Pistor (Director Customer Service), Habib Heni (International Sales Maghreb/Africa)*



# WE ARE THERE WHEREVER YOU NEED US





## Available for you on site right across the world

Wherever in the world you call home, we are there too. We have subsidiaries in eleven European countries and authorised distributors in every region of the world. Who could give you better service than our experienced specialists who are familiar with the specific requirements in your own country? Superbly networked with our Head Office in Germany they plan your

laboratory in accordance with the relevant national regulations and organise the whole of the project management directly with your site. This means that Köttermann is always there for you – even across the greatest distances!





KÖTTERMANN  
INTEGRATED QUALITY

# OUR COMMITMENT TO QUALITY

Quality is not a one-off event. It is something that lasts and it is something reciprocal. Learn more about Köttermann Integrated Quality and how you can benefit from it.

## Köttermann Integrated Quality

Quality is a necessity and a promise. It has been a fundamental part of the Köttermann company history for over 60 years. This is reflected in a comprehensive approach: Köttermann Integrated Quality unites all the quality aspects that we stringently adhere to on a company level as well as a product level and it illustrates their interaction. We adopt these highest standards in our work for you.

## Working from a position of strength

Only a company that listens, learns, constantly improves and optimises its knowledge for the benefit of the customers can be successful on the highest level. Only then is it able to permanently establish close bonds with employees, customers and shareholders. From this position of strength we at Köttermann manage to develop the best products, achieving satisfaction for customers as well as for employees.



## Experience it every day

Köttermann Integrated Quality is like a living organism. It is strong and full of life as are all its individual components. To remain this way it requires constant monitoring, clear communication and interaction, as well as constant review. We make sure we achieve this by working together. We have set about proving the quality of our products every day for 60 years.



**COMPANY**

Tradition, values, responsibility

**CUSTOMERS**

Dialogue, advice, understanding

**EMPLOYEES**

Code of conduct, creativity, further qualification

**SUPPLIERS AND DISTRIBUTORS**

Continuity, trust, partnership

**PREMIUM PRODUCTS**

Meeting all technical standards and guidelines, providing a manufacturer's warranty of up to 20 years

**DEVELOPMENT AND MANUFACTURING**

Made in Germany, steel construction, highest standards

**PROJECT MANAGEMENT AND SERVICE**

Certified installers, financing

**SUSTAINABILITY**

Environmental protection and protection of resources DIN EN ISO 14001



## COMPANY

Over a period of 60 years a small workshop business has been turned into a successful, globally active enterprise. Though we have progressed in all areas, we remain conscious of some critical issues. We know where we came from and we have not forgotten that we bear a great responsibility: for the company, our employees, our customers, suppliers and our business.



## CUSTOMERS

Proximity is what makes our customer relations so strong. Our subsidiaries and authorised distributor networks are available wherever you need us – worldwide. As our customer you play a major role in contributing to the further development of the Köttermann Systemlabor. After all it is tailored to your individual requirements. We listen to you carefully to understand exactly what your requirements are. This enables us to provide you with the best possible advice as well as an extensive range of accompanying services for decades to come.



## EMPLOYEES

Our values and principles are non-negotiable. Trust, honesty, openness and mutual respect form the basis of our teamwork. It is only in such a climate that creativity and innovation can thrive. That is why we have a written code of conduct to document how we want to work with one another. This is an "active" document that is put into practice every day. Furthermore, we are aware of our responsibility for the continued training of our employees and we promote continuous learning in the Köttermann Academy which was created for this purpose.





## SUPPLIERS AND DISTRIBUTORS

Offering a premium product such as the Köttermann Systemlabor EXPLORIS® means we have to have the best distributors. We have such distributors and we make a long-term commitment to them. Our suppliers ensure that materials and supplied products are available on time and with consistently high quality. Our network of subsidiaries and authorised distributors – extensively trained at the Köttermann Academy – does everything to find the perfect solution for our customers' requirements. They represent Köttermann in your area – a key role based on long-lasting, trusting relationships. This continuity in cooperation ensures a valuable partnership, which is entirely beneficial for the product and therefore you.



## PREMIUM PRODUCTS

Every day we search for new ways to perfect the benefits that our customers gain from our services. This constant striving allows us to achieve peak performance in our company's development. The result is the new Köttermann Systemlabor EXPLORIS®, which meets nearly all the relevant standards across the world, thus offering our customers a safe investment for the future. We are so convinced of this that we offer a warranty of up to 20 years. The primary feature of our Systemlabor EXPLORIS® is, however, its safety. Your safety in the workplace is very important to us because it is only in such an environment that you can feel truly comfortable and achieve great results in your work.



## DEVELOPMENT AND MANUFACTURING

Our customers purchase a high-tech laboratory system which is in every aspect "Made in Germany": It is developed in line with the highest standards and by the best engineers. For decades now we have been manufacturing the Köttermann Systemlabor from steel. This material is extremely durable, hard to contaminate and fully recyclable. Our extensive range of laboratory furniture, laboratory fume cupboards, service supply systems and safety technology also guarantees that we are able to satisfy all our customers' requirements.



## PROJECT MANAGEMENT AND SERVICES

The Köttermann Systemlabor EXPLORIS® provides a complete service. We do not only manufacture laboratory furniture for you, we plan and furnish ready-to-operate laboratories tailored to customer requirements. Our installers work according to defined quality guidelines and will install your laboratory quickly, reliably and with precision. Köttermann also offers finance and leasing of its laboratory systems as one of its services to customers.



## SUSTAINABILITY

As an established business we accept our social responsibility. This starts with the sustainable protection of our own living space. The products which you buy from us have been manufactured using resources as sparingly as possible; a product which is almost one hundred percent recyclable; a product which comes from a company who in 1997 became the first in the industry to be certified according to the DIN EN ISO 14001 standard. We see environmental protection as an opportunity for the future which is worth working hard for today.

# ALWAYS KEEPING THE FUTURE IN MIND



## Successful and sustainable

For us being sustainable means acting in a forward thinking manner. Whatever we do today sets the course for our future. Business success must therefore be based on a long-term strategy. This is what we are working towards.





## PRODUCTS WHICH USE RESOURCES SPARINGLY

We manufacture the Köttermann Systemlabor from steel, a very durable product which can be almost entirely recycled. Even the standard models of all of our fume cupboards are fitted with a sash controller, which means they use less energy. Our fume cupboards also achieve particularly low volume flow rates although, despite the technical feasibility, we have consciously decided not to keep striving for ever lower levels. This is because the operator's safety is always our number one concern.

## ENERGY-SAVING PRODUCTION

Above all, energy consumption can be reduced during production. Here we employ efficient solutions: from lighting which is solar powered, through to heating control which ensures that only the necessary parts of the building are heated, along with radiant cooling/heating ceilings in our offices and rotary heat exchangers in our air conditioning system.

Also, when it comes to emissions, less is more. For example using a vacuum evaporator reduces the waste water produced by our coatings systems by 98 %. Under the direction of our environmental manager we are constantly striving to improve our energy balance.



## Reliable project management

A laboratory is ideal if you can work comfortably and safely in it. Köttermann's efficient project management system accompanies you from the first planning stages right up to the handover of your project.



# FULLY IN LINE WITH YOUR NEEDS

We aim to fulfil customers' individual requirements and to implement flexible solutions as we fulfil your orders quickly and efficiently. That is the claim which we make at Köttermann and we are happy to be judged by it.



## WORLDWIDE WITH A VISION

We are always ready to fulfil your requirements. Whether you need new laboratory facility, a refurbishment or only laboratory furniture, we will steer your project to its goal with foresight and precision. Our own manufacturing plant in Germany gives you a great deal of process security – we are able to implement your needs and requirements quickly after we have completed the analysis and detailed planning. Our extensive range of laboratory furniture, fume cupboards, service supply systems and chemical storage cabinets supports this further.

## STEP BY STEP TOWARDS A FULLY OPERATIONAL LABORATORY

We can supply and install your new laboratory anywhere in the world – on time and reliably. For this you have the guarantee of our experienced international project management team. No matter where you are in the world, one of Köttermann's distributors is always close by. This ensures that your laboratory is installed properly. Our expert pre-installation work in the factory ensures careful assembly and installation of your laboratory. Therefore, nothing can stand in the way of the smooth operation of your laboratory. We can even provide you with attractive leasing terms under our Köttermann "Pro-Finance" plan should you require.

# THE NEXT STAGE OF EVOLUTION



## EXPLORIS

### EXPLORIS® – the new Systemlabor from Köttermann

Continuously refined and as a result of our customers' insights and requirements in recent years:  
EXPLORIS® – our new Systemlabor.



Discover the benefits of the new Köttermann Systemlabor EXPLORIS®. We at Köttermann are so convinced of its quality that we are offering up to 20 years manufacturer's warranty on it.

**> QUALITY > DESIGN**

**> FLEXIBILITY > ERGONOMICS**

**> SAFETY > INNOVATION**



## SOPHISTICATED MODULAR SYSTEM FEATURING MANY NEW IDEAS

Our new Systemlabor EXPLORIS® remains modular in concept and has become even more flexible, safe and intelligent – a furniture concept which can be even more closely tailored to your requirements and budget. Quality and your safety are our focus more than ever before. With EXPLORIS® we have also taken into account the ever increasing demands for flexibility and easy operation.

Steel is still our material of choice for production. This sturdy material is extremely durable and also fully recyclable. Steel is also our first choice where safety is concerned because it significantly reduces the fire risk in the laboratory and is hard to contaminate. Last, but not least, we have also focused on the design, as functionality and aesthetics have to work in perfect harmony to ensure you feel really comfortable in your workplace.

# EXPLORIS® – CAREFULLY THOUGHT OUT IN EVERY DETAIL

## SMOOTH AND QUIET

Cushioned with soft-closing automatic pull-in and damping system



## STEEL CONSTRUCTION

Steel is a robust, durable material with reduced fire risk



## Even a premium product can be further refined

It is the attention to detail which moves us forward. We are constantly looking out and carefully listening for ways to optimise our products. Our experience, along with your suggestions, has enabled us to create our best ever products in the new Systemlabor EXPLORIS®. And we will continue to strive to be even better for you.

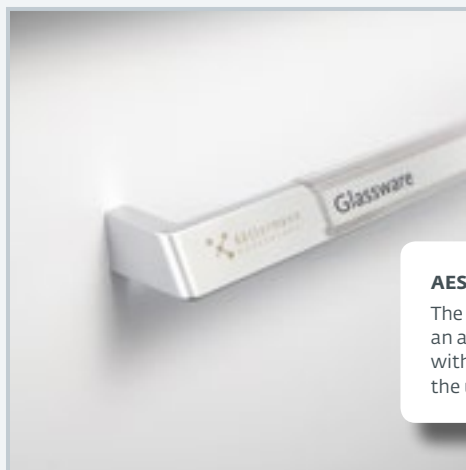


**CLEAR LINES AND TRANSPARENCY**

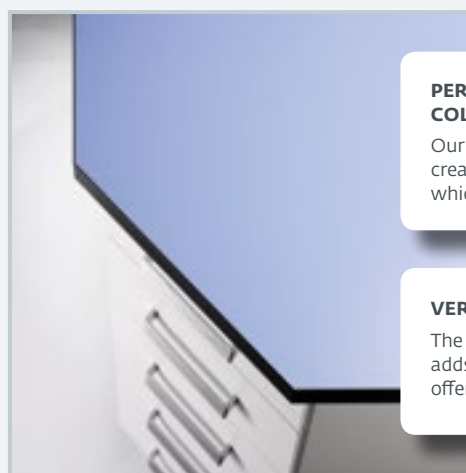
With their clear lines and transparent design our service columns provide a visual oasis of calm

**AESTHETIC & PRACTICAL**

The high-quality furniture handles feature an attractive design which can be fitted with a label holder to detail the content of the units

**PERFECTLY CO-ORDINATED COLOURS**

Our perfectly matched colour shades create a pleasant atmosphere in which to work

**VERSATILITY**

The characteristic octagonal shape adds an aesthetic touch and also offers several functional benefits

**QUALITY WHICH CAN BE SEEN AND HEARD**

A company like ours which offers up to 20 years warranty on its products has to be sure of its quality, so you can be sure too. We make every effort to live up to our high standards – down to the smallest detail.

This begins from the outset with our choice of steel as the material for our products. Robust, hygienic, with a reduced fire risk, it is extremely durable and completely recyclable. Our constant striving for quality continues with noise-reduced doors and drawers which close gently and quietly thanks to their soft-closing automatic closure and damping systems, because comfort is required in a laboratory too.

**MORE THAN A QUESTION OF AESTHETICS**

Does design play an important role in the laboratory? We believe so. That is why we included an internationally renowned design agency in the development of the new EXPLORIS® range. Because a harmonious, attractive environment has a positive effect on your work.

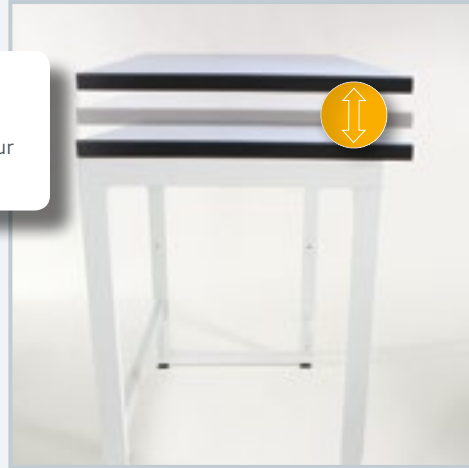
Good design is always functional as well. The best examples of this are the characteristic octagonal shape of our laboratory tables or the transparent design of the service columns which offer clear views in the laboratory. Also the improved furniture handles, which are not just visually attractive, but also fit perfectly into the hand. Wherever you look you will find a successful combination of design and function.

# Quality

# Design

**HEIGHT-ADJUSTABLE**

The Universal frame can be continuously adjusted to your required working height

**AVAILABLE AS C- OR A-FRAME**

Choose between greater leg room or high load capacity

**MEDIA CASSETTE SYSTEM**

Access to services mounted on cassettes which can be individually equipped and exchanged

**YOU ARE THE JUDGE OF EVERYTHING**

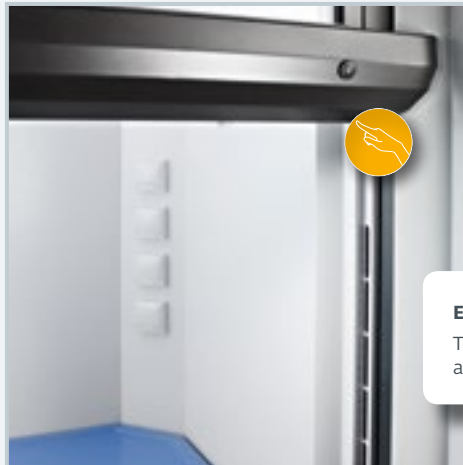
Work requirements in a laboratory are constantly changing, as are the needs of the people who work there. The EXPLORIS® range is tailored to adapt to this change, with ideas that allow maximum flexibility. All benches with Universal frames can be continuously height-adjusted during installation between 720 and

960 mm to individually suit your height. They can furthermore be used as A- or as C-frames, offering exactly the amount of leg room you prefer. Services are mounted on cassettes which can be equipped, re-configured or retrofitted as required, making your laboratory just as flexible as you are.

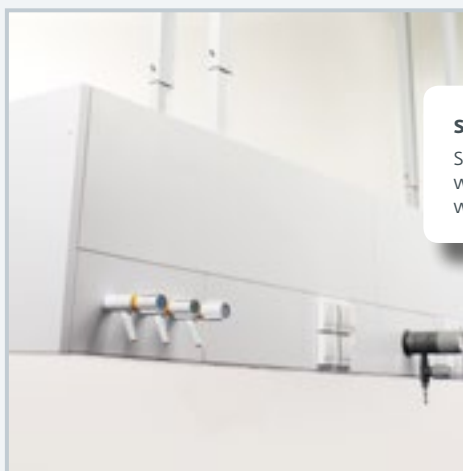
# Flexibility

**EXPLORIS VarioTop®**

Height-adjustable fume cupboard worktop for working while sitting, standing or for tall test set-ups

**EASY TO OPERATE**

The sash can be operated with the touch of a button or by using the foot switch

**SPACE FOR ALL YOUR EQUIPMENT**

Service booms contain all the fittings you will need, leaving the table clear for your work

**BRINGING WORK AND ANATOMY TOGETHER**

Ergonomics play an important role in the EXPLORIS® range so that you remain healthy and productive in your workplace. In addition to the height-adjustable bench frames you can also have a fume cupboard with a back-friendly, electronically adjustable worktop.

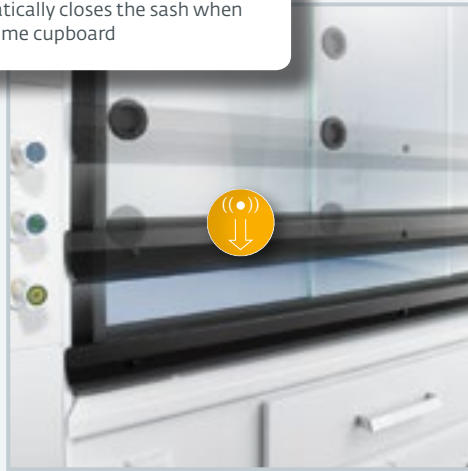
The sash of our fume cupboards will respond to the touch of a button or, if you prefer, there is the option of a foot switch. The service booms with telescopic hangers provide your services from above leaving the table free for your work. Carefully thought-out details which make your work easier each and every day.

# Ergonomics



**EXPLORIS AutoProtect®**

The sash controller automatically closes the sash when you move away from the fume cupboard

**EXPLORIS CloseGuard®**

The light barrier monitors the sash aperture and halts movement when obstacles are detected

**OPTIMUM FIRE RESISTANCE**

Safety cabinets with Type 90 ratings are particularly effective at protecting flammable hazardous materials against fire

**SAFETY IS OUR HIGHEST PRIORITY**

Your safety is our priority. We ensure this with many features in the EXPLORIS® range. For example, Type 90 rating provides additional safety for storage of flammable hazardous substances.

It is especially in the area of fume cupboards, however, that our intelligent features make working in the

laboratory even safer. Whether it is the standard-fit EXPLORIS AutoProtect® sash controller or the optional EXPLORIS CloseGuard® light barrier for halting the sash when obstacles are encountered – we think ahead to keep you safe.

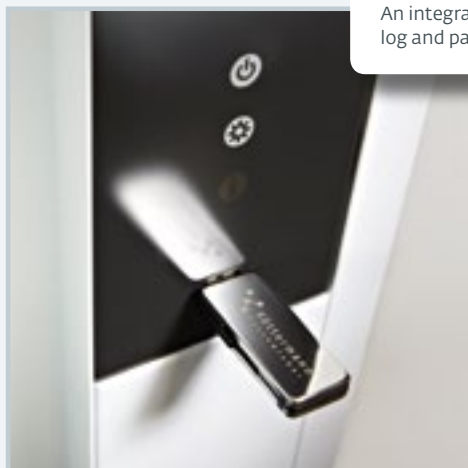
# Safety

**EXPLORIS AirMonitor®**

Innovative extract monitoring ensures safe fume cupboard operation in accordance with international standards

**REMOTE DIAGNOSTICS**

An integrated USB interface with activity log and parameter change options

**EXPLORIS TouchTronic®**

Intelligent fume cupboard electronics with an easy-to-use touchscreen for control and monitoring

**SENSORS AND INTELLIGENT ELECTRONICS FOR FULL CONTROL**

We are always coming up with new ideas for you because we want you to be more than satisfied.

Take, for example, the EXPLORIS AirMonitor®. This measures either the volumetric flow rate or the face velocity and therefore monitors the safety of the fume cupboard in accordance with many international standards. The optional temperature sensor in the fume cupboard will also protect against thermal overload. Our new fume cupboard electronics include a high level

of innovation. An entire PC is concealed behind an easy-to-use touchscreen for controlling numerous functions: from the sash to the extract monitoring or the sockets which can be switched or programmed from the outside to remote diagnosis with activity log and parameter change options using an integrated USB interface. This technology sets standards in the laboratory – exactly as you would expect from us.

# Innovation

# ROOM FOR ALL YOUR NEEDS

We meet your  
requirements

**EXPLORIS**



### **AN INTEGRATED FURNITURE CONCEPT**

Experience flexibility and ergonomics. Make perfect use of your space. The Köttermann Systemlabor EXPLORIS® lets you work more efficiently, as all the laboratory furniture fits into an integrated furniture concept, both practically and according to your requirements.

Your laboratory will be ready for future requirements because retrofitting or re-configuration are both easily possible. Just how you want it – no more, no less.

# Laboratory furniture

# Securely and conveniently stored away

Where can you put all the things you need in a laboratory? It is always best to have them located conveniently, directly under the work top. Our EXPLORIS® underbench units offer you storage space which is made to measure.

Cabinets can be mobile on castors, suspended from frames for extra foot space or mounted on an adjustable pedestal to help even out irregularities in the floor. Whether a rectangular design or with octagonal corners they are suitable for use as substructures for worktops.

Select your own combination of drawers, solid hinged doors and open fronted units. Choose corner units with Le-Mans pull-out or rotating carousel to make the best possible use of your space. Create your own individual

arrangement by selecting from our many extras: stable full pull-out drawers, waste units or a stationary drawer – all your wishes are granted. This is how beautiful and simple your workplace organisation can be.

## BENEFITS TO YOU

- > 3 different types of cabinets:
  - pedestal cabinets
  - U-frame cabinets
  - mobile cabinets
- > Many possible combinations of doors and drawers
- > Special cabinets:
  - waste collection cabinets
  - office stationary cabinets
  - corner cabinets

## QUALITY

Premium quality full pull-out drawers with automatic self-closing and impact damping for ease of use

## FLEXIBILITY

A wide range of different models to suit a wide range of uses



## UNDERBENCH CABINETS

Corner cabinets with "Le-Mans" pull-out or rotating carousel make optimum use of available space



270° hinges guarantee ergonomic access to the cabinets' contents



Premium quality full pull-out drawers with automatic self-closing and impact damping for ease of use

### Features

- Optional locks
- Combinations including drawers, solid hinged doors and open fronts
- Available with door heights from 600 mm, each with 1 adjustable, removable shelf

### Special cabinets

- Installation cabinet
- Corner cabinet
- Waste cabinet
- Office underbench cabinet with hanging file pull-outs and stationery drawer
- Equipment pull-out cabinet

	Dimensions (mm)											
	Width								Height		Depth	
<b>Pedestal cabinets</b>	-	450	-	600	-	900	-	1200	720	870	350	500
<b>Mobile cabinets</b>	423	-	573	600	846	-	1146	-	590	740	-	500
<b>Suspended cabinets</b>	423	-	573	600	846	-	1146	-	480	630	-	500

We reserve the right to make amendments to the technical specifications and/or design.



# Storage space with many extras

A wide range of spacious models: to ensure that there is a place for everything in your laboratory we have an extensive range of tall cabinets. Our selection consists of cabinets with open shelves; cabinets with solid hinged doors or sliding glass doors; display cabinets; cabinets with pull-outs (pharmacy cabinet) and wardrobe cabinets.

The many options for the interiors are also impressive. Our removable shelves are height-adjustable and the pull-out drawers facilitate access to the cabinets' contents meaning that items can be stored while packed very closely together.

## BENEFITS TO YOU

- > Available in two different depths
- > Available in many formats
- > Flexible interior fittings
- > Suitable for storage of folders
- > Storage room can be extended with overhead cabinets (see page 40 onwards)



### SAFETY

Glass doors made from safety glass

### FLEXIBILITY

Wide range of options using different formats, interior fittings and two different depths



### QUALITY

Double-skinned, noise-insulated doors

## TALL CABINETS

*Pull-out drawers facilitate access and allow space-saving storage*



*Wardrobe pull-out: a practical aid in every-day laboratory use*



### Fittings

- Optional locks
- Option available to have 3 or 4 removable shelves or 4 pull-out drawers
- Top-mounted cabinets to increase height

### Cabinet options

- Open front
- Solid hinged doors
- Sliding glass doors
- Display cabinet
- Wardrobe cabinet
- With pull-outs (pharmacy cabinet)

	Dimensions (mm)						
	Width				Height	Depth	
<b>Open front (shelf)</b>	-	600	900	1200	1920	350	500
<b>Solid hinged doors</b>	-	600	900	1200	1920	350	500
<b>Sliding glass doors</b>	-	-	900	1200	1920	350	500
<b>Display cabinet</b>	-	-	900	1200	1920	350	500
<b>Wardrobe cabinet</b>	-	600	-	-	1920	-	500
<b>Pull-outs (pharmacy cabinet)</b>	300	600	900	1200	1920	-	500

*We reserve the right to make amendments to the technical specifications and/or design.*

# Tidied up instead of piled up

Even in limited laboratory space there is always more room available for storage above head height. EXPLORIS® wall and top-mounted cabinets make maximum use of this space and solve any storage problems.

You can choose between three types of solution: top-mounted cabinets can be used to significantly extend the storage capacity of tall cabinets; wall-mounted cabinets can be installed on service cells or can be installed directly onto the wall.

Service cells on island benches can be supplied with overhead cabinets which can be opened on either side and as a result of their glass doors provide both transparency and good visibility across the room.

Due to Köttermann's carefully designed cabinet solutions your laboratory always appears tidy and spacious.

## BENEFITS TO YOU

- > Maximum storage space in minimum laboratory space
- > Wide range of options
  - top-mounted cabinets for tall cabinets
  - overhead storage for service cells on island benches
  - wall-mounted cabinets may be installed on the wall or on service cells



## FLEXIBILITY

Overhead cabinets – the ideal solution for every space problem



## WALL AND TOP-MOUNTED CABINETS

Hidden behind solid hinged doors: storage space in top-mounted cabinets



The First Aid cabinet can be immediately recognised by its Green Cross

Sliding glass doors ensure you can always see the cabinets' contents and create a light, transparent unit



### Fittings

- Optional locks
- Overhead cabinets for service cells and wall-mounted cabinets with 1 adjustable removable shelf

### Cabinet options

- Wall-mounted
  - open front, with solid hinged doors or sliding glass doors
  - installation cabinet for cable routing or as a First Aid cabinet
- Top-mounted for tall cabinets
  - open front or with solid hinged doors
- Overhead for service cells on island benches
  - with sliding glass doors on both sides

	Dimensions (mm)										
	Width						Height			Depth	
<b>Top-mounted for tall cabinet</b>	-	-	600	900	1200	-	480	630	780	350	500
<b>Overhead cabinets for service cells on island benches</b>	-	-	-	900	1200	1500	480	-	-	350	-
<b>Wall-mounted with solid hinged doors</b>	-	450	600	900	1200	1500	480	630	780	350	-
<b>Wall-mounted with sliding glass doors</b>	-	-	-	900	1200	1500	480	630	780	350	-
<b>First Aid cabinet</b>	-	450	-	-	-	-	480	630	780	350	-
<b>Installation type</b>	300	-	-	-	-	-	480	630	780	350	-

We reserve the right to make amendments to the technical specifications and/or design.

# A new formula for flexibility: From A and C we get U

The frame forms the backbone of any work bench – it is both flexible and durable. It has to bear the weight not just of the worktop, but also of any cabinets suspended underneath. The EXPLORIS® Universal frame (U-frame) will meet your requirements exactly because it combines two different models in one frame.

The front bars can be adjusted to form either the space-saving C- frame model for extra leg room while sitting or the especially sturdy A- frame model. In addition the height can be continuously adjusted between 720 and 960 mm to allow ergonomic working for all body sizes.

Especially designed for underbench cabinets and the octagonal work tops, so typical of Köttermann, you can buy the appropriate frames at angles from 90° to 360°. You can therefore design your work station to your indi-

vidual specifications and combine versatile functionality with an attractive look.

## BENEFITS TO YOU

- > Universal frame (U-frame) for flexible adjustment:
  - the A-frame model for bearing especially high loads
  - the C-frame model for extra leg room
- > Ergonomic and kind to your back because of its adjustable height
- > High load-bearing capacity
  - C-frame: 250 kg/m<sup>2</sup> of worktop
  - A-frame: 350 kg/m<sup>2</sup> of worktop
- > Floor under worktops easily accessible for cleaning



### ERGONOMICS

Height-adjustable to create desired working height (720-960 mm)

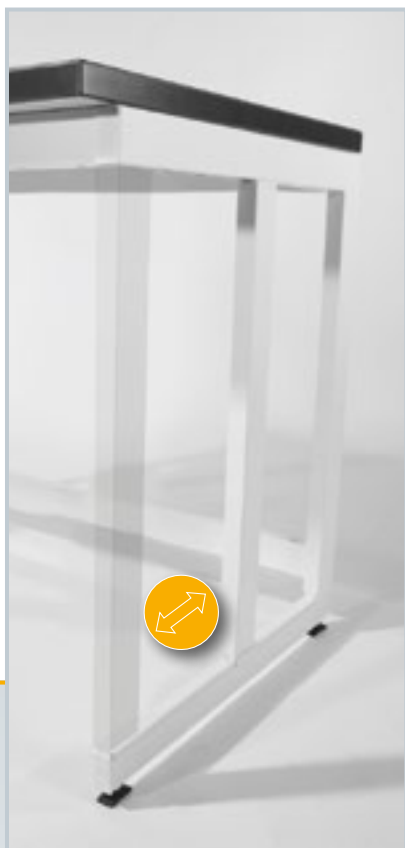
### FLEXIBILITY

Adjustable as either an A-frame or C-frame model



## FRAMES

The new Universal frame can be adjusted to form either the A-frame or C-frame model

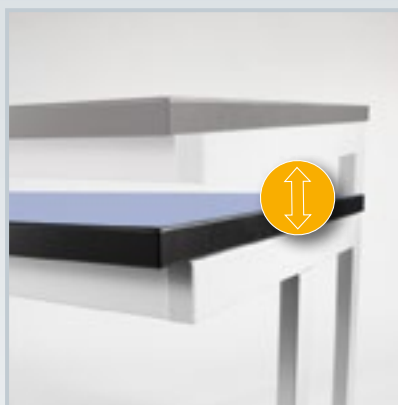


The sizes of the underbench cabinet and the frame are a precision fit



The A-frame model is designed to bear heavy loads

Thanks to its adjustable height the U-frame can be used for either sitting or standing height benches



### Formats

- Rectangular or octagonal designs
- Height-adjustable table legs
- Adjustable feet for levelling
- Optional vanity panels for side and rear screening

	Dimensions (mm)												
	Modular width									Height	Depth		
<b>Rectangular</b>	627	750	900	1200	-	1500	-	-	-	variable 720-960	600	750	900
<b>Octagonal 90°</b>	-	750	900	-	-	-	-	-	-	variable 720-960	-	750	900
<b>Octagonal 180°</b>	-	-	-	-	1350	1500	1650	1800	1950	variable 720-960	-	750	900
<b>Octagonal 360°</b>	-	-	-	-	-	1500	-	1800	-	variable 720-960	-	750	900

We reserve the right to make amendments to the technical specifications and/or design.



# Mobile, durable, high precision

As a space for documents and as a place for experimental set-ups and apparatus, tables fulfil a variety of roles in the laboratory. Despite being fixed objects they are flexible and can be adjusted for height and for uneven floors. Mobile tables allow you to work in more than one place and allow the transport of heavy equipment.

Standard versions can bear loads of up to 180 kg and there are special heavy-duty mobile tables with extra sturdy castors for heavier weights. The castors rotate fully and are lockable.

The balance bench is a specialist type of table which can either be free-standing or incorporated into another table set-up, either for sitting or standing operation.

Balance benches are used to achieve vibration-free conditions for setting up analytical scales so that even the smallest quantities can be weighed accurately.

## BENEFITS TO YOU

- > 3 styles: single table (static or mobile); heavy-duty table (only mobile); balance bench
- > For both standard and heavy-duty tables you can choose between integral drawers and underbench cabinets
- > Minimise vibration for weighing on balance bench



### QUALITY

Available with resistant melamine TopResist® or laboratory grade SGL worktop



### FLEXIBILITY

Balance benches can also be incorporated into worktops



Our especially sturdy castors ensure that the heavy-duty mobile table is able to bear loads of up to 400 kg



Fittings							
<ul style="list-style-type: none"><li>• Single tables, fixed or mobile</li><li>• Heavy-duty table (only mobile) at sitting or standing height</li><li>• Storage drawers or underbench cabinet</li><li>• Melamine Standard worktop</li></ul>							
Worktop options							
<ul style="list-style-type: none"><li>• Melamine TopResist® worktop</li><li>• Laboratory grade SGL worktop</li></ul>							
	Dimensions (mm)						
	Width				Height	Depth	
Individual static table	900	1200	1500	-	variable 720-960	600	750
Individual mobile table	900	1200	1500	1800	variable 720-960	600	750
Heavy-duty mobile table	900	1200	1500	-	750, 900	600	750
Balance bench, free-standing	900	-	-	-	750, 900	600	-
Balance bench, built-in	-	-	-	-	750, 900	-	-

We reserve the right to make amendments to the technical specifications and/or design.

# Purpose-built to meet your requirements

The types of work performed in a laboratory are very varied and so are our EXPLORIS® worktops. You can be certain that you will be getting exactly the right worktop for your needs. You can choose from 10 different materials, each of which has its own special benefits.

Ceramics are very resistant to aggressive substances and do not show any signs of wear even after long use. Melamine is suitable for lower levels of chemical load. If you work under very sterile conditions, for example in a biological laboratory, then we would recommend stainless steel. You need to tell us about your requirements and we will be happy to advise you on the best materials to use.

The worktops are available either with a plain edge or with a marine edge to trap any spilled fluids. We want you to make the best possible use of your laboratory space

and as well as rectangular designs you can also choose from the octagonal designs, so typical of Köttermann, which are available in many sizes. We will also cut the worktops exactly to size to fit in your available space – for example, to fit around structural columns.

## BENEFITS TO YOU

- > 10 materials for every kind of use
- > 5 materials available with marine edge for trapping spilled fluids
- > A variety of configurations using different combinations of material and using rectangular as well as octagonal designs
- > Harmonious colour matching

## QUALITY

Melamine TopResist® worktops provide a high degree of chemical resistance at the best price-performance ratio

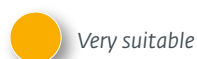
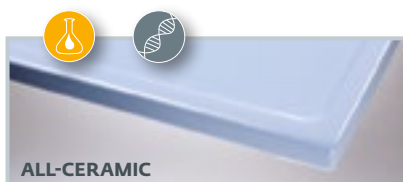
## SAFETY


Worktops with marine edge trap spilled fluids








## WORKTOPS



 **OFFICE AND EVALUATION:** Areas in which writing tasks are undertaken; without marine edging and with adequate scratch resistance

 **WET CHEMISTRY:** Areas in which work is conducted using large quantities of chemicals; with marine edging and very high chemical resistance

 **EQUIPMENT WORK STATIONS:** Areas in which work is conducted using analytical devices and smaller quantities of chemicals; without marine edging and with good scratch resistance

 **BIOLOGY:** Areas with special requirements for hygiene and moderate chemical load; worktops with few joints and good chemical resistance

### Fittings

- Worktops without marine edge: Melamine, Melamine TopResist®, Standard grade SGL, Laboratory grade SGL, Composite ceramic, Glass
- Worktops with marine edge: All-ceramic, Laboratory grade SGL, Polypropylene, Epoxy resin, Stainless steel
- Rectangular or octagonal design

	Dimensions (mm)	
	Width	Depth
<b>Rectangular</b>	600–2400	400 (Only available without marine edging), 600, 750, 900
<b>Octagonal 90°</b>	750	750
	900	900
<b>Octagonal 180°</b>	1500	750
	1650	750
	1800	900
	1950	900
<b>Octagonal 360°</b>	1500	1500
	1800	1800

We reserve the right to make amendments to the technical specifications and/or design.

# Wet areas made to measure

Practical solutions are required anywhere in a laboratory where work involves using water. Whether you opt for a sink bowl or a complete sink unit will depend on your own needs and the available space.

Our sink units comprise a sink bowl together with a drainage board which replaces the work surface. Together with the appropriate substructures they can be used as free-standing sink units or as part of a bench. Sink bowls can either be integrated into a media supply system or adapted to fit directly into a worktop.

Our range of sink units, sink bowls and worktop materials permits a wide range of possible combinations. Splashbacks for sink units as well as soap and hand towel dispensers round off our range of products.

## BENEFITS TO YOU

- > 4 materials for sinks
- > Various installation options
  - flush-fitting
  - drop-on (lipped)
  - seamless (as part of sink unit)
- > Many possible combinations of sink units, basins and worktop materials

## ERGONOMICS

Sink units – optimally configured in wet work stations



## BASINS AND SINK UNITS

To save space drip-cups can be installed in service cells directly under water taps



Sink units are complete units comprising sink bowl, worktop drainer and marine edging



Sink bowls – here, made of stainless steel – can be installed directly into the worktop where required



### Sink Bowl Fittings

- Ceramic (in ceramic worktop only); Stainless steel; Epoxy resin; Polypropylene
- Various installation options (material dependent)
  - flush-fitting
  - drop-on (lipped)
  - seamless (as part of sink unit)

### Sink Unit Fittings

- 3 Materials: Ceramic, Stainless steel, Polypropylene
- Basin left, centre, right
- With or without drainage surface



# SIMPLIFIED PROCESSES



**We create  
connections**



### CONVERSION MADE EASY

Simplify your work processes in the laboratory. Install the right services in the optimal locations. Be it service cells or service booms suspended from the ceiling, you are able to choose the most functional components in your laboratory along with the appropriate furniture.

Then we create a space-saving installation. All service outlets are installed in removable cassettes. These can be fitted according to your requirements and you have the possibility to reconfigure them at any time.

# Service systems

# Close to the source

To allow the smooth running of processes in your laboratory, water, gases and electricity, as well as all other services used in the laboratory, must be readily available in the immediate vicinity of your workstation. All of this must meet the required level of quality and sterility, and with the requisite number of outlets. As with all of Köttermann's products, service supplies are always available. EXPLORIS® offers a number of alternative service supply options such as service cells and service booms.

Service cells are normally an integral component of a workbench and are either fitted behind the worktop or installed directly on top of it. Service booms are suspended from the ceiling above the worktop or installed on the wall. In cells as well as booms there is flexibility to fit service outlets. Electrical sockets and gas and water taps are placed in removable cassettes that can easily be reconfigured.

All of these features mean that the Köttermann Systemlabor EXPLORIS® is always able to meet your changing requirements.

## BENEFITS TO YOU

- > High visibility through service cells
- > Clear worktops beneath service booms
- > A high density of services is possible with cells and booms
- > Easy assembly and retrofitting of media cassettes



## FLEXIBILITY

Removable media cassettes – fitted and retrofitted as required

## SAFETY

Everything is always easily visible due to the open design of service columns



## SERVICE SYSTEMS



*The entire width of the service booms can be fitted with cassettes on the front, underside and on the back*

*Service columns can be fitted with cassettes on all sides*



*Service cells allow a clear view of experiments*



*Service booms supply large analytical devices from the ceiling and allow access to the rear of the device in order to carry out maintenance work*



### Formats

- Floor-mounted service cells
- Bench-mounted service cells
- Service booms

> Information on individual service options can be found in the following pages

*We reserve the right to make amendments to the technical specifications and/or design.*



# A wide range of possibilities

Service cells are the typical form of service supply in the Köttermann Systemlabor EXPLORIS®. Service cells come in two types: floor-mounted and bench-mounted.

They can be used on wall benches and island benches. Floor-mounted service cells are normally fitted behind the worktop or stand-alone to provide large devices or mobile tables with services. Bench-mounted service cells are installed on the worktop and form a fixed unit creating a larger work surface.

You can arrange service cells modularly according to your requirements. The basic set-up is simple and effective: for each service column on the right and left there can be two or three shelves inbetween creating the cell. Installing the columns at the side creates a generous working area with a clear view. The cells are custom-designed with power supply points for electricity with

optional circuit breakers (MCBs & RCDs), electrical sockets and gas and water fittings.

The cells can be supplemented with top-mounted cabinets, splashbacks, workstation lights and stand systems.

## BENEFITS TO YOU

- > A high density of services with flexible modular media cassettes
- > Service columns can be fitted on all four sides with media cassettes
- > Bright workstation lighting
- > Flexible connections to building service supplies

### FLEXIBILITY

Service columns can be fitted on all four sides with cassettes

### ERGONOMICS

Laterally fitted electrical sockets and fixtures are easily accessible even when behind large pieces of equipment

### DESIGN

Clear view of the laboratory due to the open design



Service columns can be equipped with fittings, electrical sockets, switches and circuit breakers on all four sides according to requirements



Features

- Service columns
- Shelves
- Service cells with integrated drip cups

Options

- Top-mounted cabinets (see Furniture chapter from page 40 onwards)
- Top-mounted cabinets with sliding glass doors on both sides (see Furniture chapter from page 40 onwards)
- Backsplashes made of single-layer safety glass or powder-coated steel
- Workstation lights that can be operated individually or together
- Gas and water fittings
- Circuit breakers (MCBs & RCDs) and electrical sockets
- Stand systems

	Dimensions (mm)						
	Width			Height			Depth
Single-sided island benches	900	1200	1500	1320	1620	1920	150
Island benches	900	1200	1500	1320	1620	1920	150
Wall benches	900	1200	1500	310	610	910	150
Peninsular benches	900	1200	1500	310	610	910	150

We reserve the right to make amendments to the technical specifications and/or design.

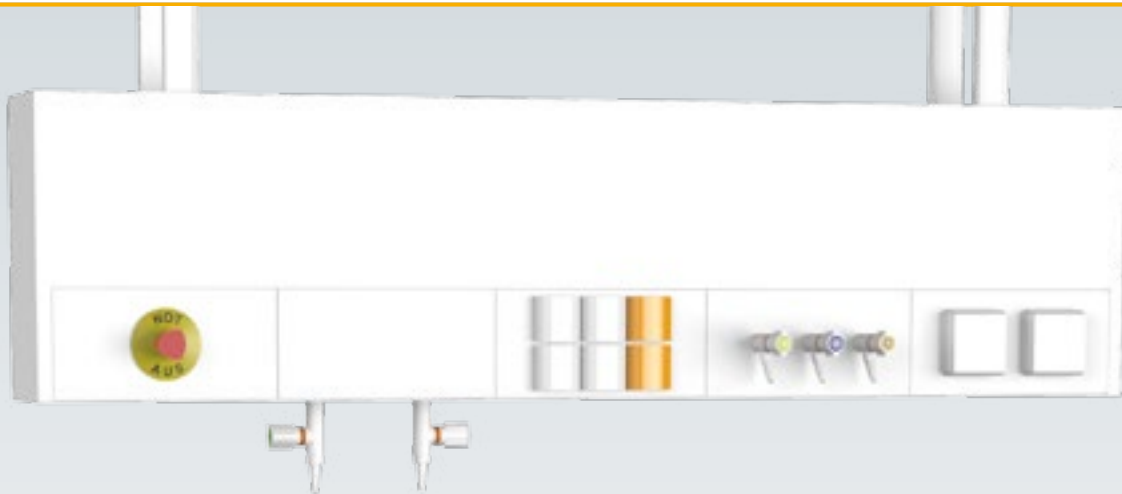
# Spacious with plenty of room

To free up more worktop space in your laboratory, the Köttermann Systemlabor EXPLORIS® provides service booms for ceiling and wall installation. Booms mounted on the ceiling can be suspended at variable heights above the worktop. This ensures the worktop remains accessible even from the back. This is ideal for setting up analytical devices that must have services supplied. Wall-mounted service booms for wall benches are a space-saving alternative to service cells when no storage shelves are required.

Service booms have a modular construction. They comprise of a body that can hold media cassettes across its entire width. The boom can be custom-designed with electrical distribution points with optional circuit breakers (MCBs & RCDs), electrical sockets and gas fittings. This enables the booms to adapt perfectly to the work processes in your laboratory.

## BENEFITS TO YOU

- > Optimal supply and maintenance of bench-mounted analytical devices
- > Large number of media cassettes that can be equipped with numerous services
- > Flexible cassette system with various fitting and retrofitting options
- > Variable height positioning from the ceiling with telescopic hangers
- > No interference to your work as a result of the availability of cabling



### FLEXIBILITY

Custom-configured media cassettes that can be retrofitted

### FLEXIBILITY

Telescopic hangers for variable height settings



SERVICE BOOMS

The flexible cassette system offers a number of fitting and retrofitting options



Telescopic mounts enable an ergonomically optimal installation height



Large bench-mounted equipment is easily accessible from all sides for maintenance work



Fittings options

- Gas, cooling water and vacuum fittings
- MCBs
- RCDs
- Electrical sockets

	Dimensions (mm)			
	Width			
Ceiling-mounted	600	900	1200	1500
Wall-mounted	600	900	1200	1500

We reserve the right to make amendments to the technical specifications and/or design.



# Complete system from a single source

How well the service supply works in your laboratory is, if nothing else, a question of detail. This is another area where Köttermann's system concept is effective. From the fittings to the electrical sockets, you have an extensive range of accessories from a single source.

Each part can be combined with any of Köttermann's service supply systems and integrates seamlessly into your laboratory due to its uniform design. Safety and user-friendliness are guaranteed just as much as customisation to country-specific requirements. This is because, for us, quality comes from the details.

## BENEFITS TO YOU

- > Wide selection of electrical components and fittings
- > All cables use non-halogenated plastic (non-PCV) coating as standard
- > Electrical sockets are available in a number of variations and country-specific types
- > Electrical socket wiring uses a flexible plug-in connector system
- > Uniform appearance with accessories that can be combined with any of Köttermann's service supply systems

## ERGONOMICS

Electricity, gases and water are always in the required place with flexible media cassettes

## SAFETY

Circuit breakers (MCBs & RCDs) to protect individually definable circuits

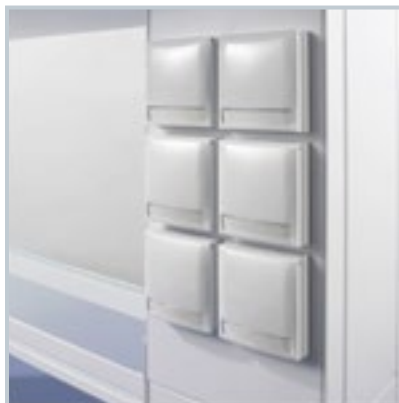


### ELECTRIC POWER SUPPLY

*Service column with electrical sockets for dedicated circuits*



*Electrical sockets are protected from splashes by a hinged cover (IP44)*



*A fused distribution box can be integrated directly into the service column*



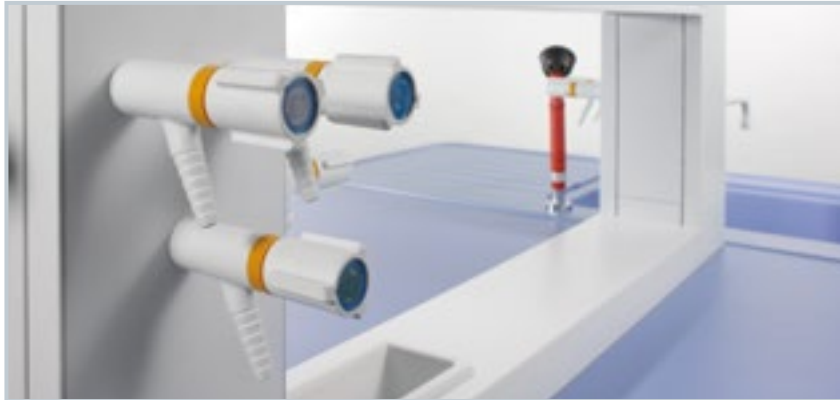
#### Fittings for service columns, service booms and fume cupboards

- Electrical sockets in country-specific types
- BS & CEE electrical sockets (230 and 400 V)
- Electrical sockets in contrasting colours for designated and emergency power supplies
- Explosion-proof electrical sockets (according to the ATEX Directive)
- Emergency stop button and key switch
- Earthed Sockets
- Electrical switches and push-buttons
- Universal flush-mounting back-boxes, e.g. for the installation of IT or telephone interfaces

*We reserve the right to make amendments to the technical specifications and/or design.*

## GAS SUPPLY

*Fittings for industrial gases are controlled by a dosing valve*



*Fittings for high purity gases can regulate pressure as well as control flow rate*



### Fittings for service columns, service booms and fume cupboards

- Valves for gases with industrial purity up to 4.5
  - material: brass
  - controlled by a dosing valve
- Valves for industrial gas with a purity of 4.5 to 6.0
  - material: brass or stainless steel according to the aggressiveness of the gas
  - pressure regulator to control the extraction pressure
  - fine-adjustment valve to control the flow rate
- Fittings for rough vacuum
  - similar to those for industrial gases
  - only limited control of the vacuum
- Fittings for fine vacuum and controlled fittings
  - allow fine adjustment of the vacuum
  - vacuum regulator for constant vacuum also available

## WATER SUPPLY | ACCESSORIES

*Standard fittings provide hot, cold and mixed water directly to the workstation*



*Practical operation with one hand*



*Tablets or flat screens can be securely mounted on the media cassettes*



### Fittings for service columns, service booms, fume cupboards and worktops

- Fittings for hot, cold and mixed water
  - material: brass
  - screw-type, lever-operated or sensor control
- Fittings for demineralised or pure water
  - material: brass, nickel-plated or polypropylene according to required purity grade
  - recirculation designs for use with high-purity water also available
  - eye washes
  - for sinks and drip cups (see Furniture chapter from page 48 onwards)





# DANGER ELIMINATED

We make it simple  
to protect you

**EXPLORIS**



## HIGHEST FIRE RESISTANCE RATINGS AND MAXIMUM STORAGE SPACE

Eliminate danger from your laboratory. The EXPLORIS® cabinets have been specifically developed to provide safe storage options for all types of chemicals, whether you need to store acids, bases, toxic chemicals or flammable liquids.

For example, in case of fire, our safety cabinets for flammable liquids are distinguished by having the highest fire resistance rating. This has been demonstrated by passing the fire chamber test in accordance with EN 14470 (Type 90). If the room temperature rises due

to fire, the doors will close automatically. The insulating sandwich construction protects the stored chemicals against heat and flames. Cabinets from the current range are regularly inspected by an independent institute.

The volume of our underbench safety cabinets is also impressive – they can hold two levels of 1-litre laboratory bottles, making maximum use of the storage space.



# Chemical storage cabinets

# Thermally insulated against fire

EXPLORIS® safety technology can save lives in the event of fire. Our safety cabinets for flammable liquids are constructed to protect the contents from external fire. The cabinets' exterior and interior are thermally insulated from one another so there is a long time delay before the external heat reaches the inside of the cabinet. Doors left open close automatically in the event of fire, as will the air inlet and outlet spigots. In addition, the door frames are automatically sealed by special fire safety seals. The result: The cabinet is hermetically sealed against external fire. This gives you valuable time to escape to safety.

All our safety cabinets for flammable liquids have passed the fire chamber test in accordance with EN 14470-1 and have a fire resistance of 90 minutes (Type 90). They therefore satisfy the requirements of the highest safety category. There are regular, unannounced inspections of the cabinets in the current range by an independent test institute. Köttermann has voluntarily agreed to this test regime because your safety is important to us.



## ERGONOMICS

Space-saving folding doors

## QUALITY

Extremely robust construction with high torsion resistance

## SAFETY

Automatic door closure after one minute

## ERGONOMICS

Simultaneous two-door opening with one handle



## SAFETY CABINETS FOR FLAMMABLE LIQUIDS

### BENEFITS TO YOU

- > Optimum protection afforded by the highest fire resistance category (Type 90 – certified in accordance with EN 14470-1)
- > Flammable liquids can be stored right where they are used in the laboratory
- > Safe operation with smooth running doors which close automatically in the event of fire
- > Extraction of dangerous fumes directly from where substances are stored
- > Lockable to protect against unauthorised use
- > Available as:
  - tall cabinet – door either hinged or bi-fold
  - underbench cabinet with hinged doors and/or drawers

### ERGONOMICS

Easy opening of doors and drawers with automatic closure in the event of fire



### INNOVATION

Extra large storage area on two levels – twice the storage capacity of 1-litre bottles compared with conventional cabinets





TALL SAFETY CABINETS

The EXPLORIS® tall safety cabinets are distinguished by a particularly robust construction which permits the easy transport of these heavy cabinets. The smooth-running hinged doors are available as an option with easy-to-use single-handed operation and automatic time-delayed closing. Amongst the fittings to choose from are removable shelves and drawers as well as drip trays in various materials.

*The adjustable soft-closing door mechanism makes it more comfortable to put in or take out receptacles*



*Optional drawers allow easy access to stored bottles and maximum use of space*



BENEFITS TO YOU

- > Available with three different types of door which all close automatically in the event of fire:
  - hinged doors can remain open in any position
  - hinged doors with ergonomic single-handed operation of two-door cabinets – made extra secure with time-delayed automatic closure
  - space-saving folding doors
- > Two types of internal fittings available:
  - removable shelves with drip tray
  - drawers
- > Optional re-circulation filter attachment
- > Optional plug-in external fan



Tall cabinet options

- 3 removable shelves and 1 drip tray (max. load 75 kg)
  - 4 internal drawers (max. load up to 60 kg)
- > For safety reasons Köttermann recommends that all safety cabinets are subject to continuous extraction

	Door closure	Dimensions (mm)	
1 hinged door, left or right	manual operation	600 x 1955 x 615	-
2 hinged doors	manual operation	900 x 1955 x 615	1200 x 1955 x 615
1 hinged door, left or right	automatic time-delayed closure	600 x 1955 x 615	-
2 hinged doors, single-handed operation	automatic time-delayed closure	900 x 1955 x 615	1200 x 1955 x 615
2 folding doors	manual operation	-	1200 x 1955 x 615

## SAFETY CABINETS FOR FLAMMABLE LIQUIDS

### UNDERBENCH SAFETY CABINETS

EXPLORIS® underbench safety cabinets are ideal for installation under laboratory fume cupboards. They allow safe and ergonomic access to flammable liquids directly at your work station. To equip your laboratory you can choose between cabinets with hinged doors, removable shelves and drip trays, cabinets with drawers or combinations of these features.

Two storage levels give twice the storage capacity of 1-litre bottles\* compared with conventional cabinets



\* Standard 1-litre bottles with a maximum height of 225 mm

Containers which monitor fluid levels provide the ideal place to store combustible waste in accordance with statutory regulations for safety cabinets



Drawers provide easy access to stored bottles – an optional second level increases your storage space

#### BENEFITS TO YOU

- > Available with three different types of front which all close automatically in the event of fire:
  - with doors, removable shelves and drip trays
  - with drawers
  - with doors and drawers
- > Extra large cabinets with extra high interior to accommodate two levels of 1-litre bottles\*

\* Standard 1-litre bottles with a maximum height of 225 mm

EN 14470-1,  
Type 90

#### Underbench cabinet options

- Cabinets with hinged doors incl. 1 drip tray (max. load 75 kg)
- 1 or 2 drawers (max. load up to 60 kg)
- Underbench cabinets with built-in rollers

> For safety reasons Köttermann recommends that all security cabinets are subject to continuous extraction

	Dimensions (mm)	
1 drawer	592 x 710 x 570	890 x 710 x 570
2 drawers	1100 x 710 x 570	1400 x 710 x 570
2 hinged doors	1100 x 710 x 570	-
2 hinged doors, 1 drawer	-	1400 x 710 x 570

We reserve the right to make amendments to the technical specifications and/or design.

# First class protection against aggressive chemicals

The storage of damaged bottles containing acids or bases generally leads to the release of aggressive fumes which threaten the health of laboratory staff. EXPLORIS® acids and bases cabinets are subject to continuous extraction thus reducing that threat.

Because of their corrosive properties, acid fumes in particular place very high demands on the material of the cabinets. In the manufacture of its cabinets and pull-out trays Köttermann exclusively uses solid polypropylene – a material which has proven itself even under aggressive conditions.

Cabinets for acids and bases are available as both tall and underbench cabinets. The liquid-tight pull-out trays allow easy access to their contents. As an option, acid-containing waste can also be directly collected into a container which monitors fluid levels inside the cabinet via a funnel which is sunk into the worktop of a fume cupboard. This means that you are always in control of hazardous materials.

## BENEFITS TO YOU

- > Safe, separated storage of acids and bases
- > Materials with the highest resistance against acids
- > Available as tall or underbench cabinets
- > Liquid-tight pull-out trays, max. load up to 30 kg
- > Continuous extraction inside the cabinet
- > Optional integrated fan

## SAFETY

Solid polypropylene with the highest resistance against acids



## ACIDS AND BASES CABINETS

Acids and bases underbench cabinets are ideal for installation under fume cupboards



Liquid-tight pull-out trays can also be used to safely collect large quantities of spilled materials

Containers for waste can be filled directly via a funnel in the worktop of a fume cupboard



### Options

- Tall and underbench cabinets with/without fan
  - Underbench cabinets for waste containers
  - Hinged doors
  - Liquid-tight drawers
- For safety reasons Köttermann recommends that all acids and bases cabinets are subject to continuous extraction
- Cabinets without a fan should be connected to an extraction system

	Dimensions (mm)				Drawers
<b>Tall cabinets, door L/R</b>	600 x 1920 x 515	-	-	-	4
<b>Underbench cabinets, door L/R</b>	600 x 720 x 515	-	-	-	2
<b>Underbench cabinets, 2 doors</b>	900 x 720 x 515	1100 x 720 x 515	1200 x 720 x 515	1400 x 720 x 515	3/4*
<b>Underbench cabinets for waste containers, door L/R</b>	600 x 720 x 515	-	-	-	1
<b>Underbench cabinets for waste containers, 2 doors</b>	900 x 720 x 515	1100 x 720 x 515	1200 x 720 x 515	1400 x 720 x 515	3



# No chance for hazardous fumes

Many chemicals which are necessary in laboratories release fumes when stored. These can represent a danger to health and emit unpleasant smells for laboratory staff. With an EXPLORIS® chemicals cabinet such problems simply evaporate into thin air. This is because the fumes from stored chemicals are effectively extracted so that they cannot contaminate the air in the laboratory. If you wish, you can even have a poisons compartment with a separate lock to prevent unauthorised access.

Whether you choose an underbench or a tall cabinet, removable shelves or practical drawers, our chemicals cabinets are the ideal solution for the safe storage of non-combustible hazardous materials.

## BENEFITS TO YOU

- > Safe storage of non-combustible hazardous materials in accordance with relevant regulations
- > Robust steel manufacture
- > Double skinned, soft-closing doors
- > Optional easy-to-use drawers
- > Optional integrated, lockable poisons compartment to prevent unauthorised access



## SAFETY

Continuous extraction inside the cabinet



*For installation purposes underbench safety chemicals cabinets are supplied without a roof panel*

## CHEMICALS CABINETS



*Optional drawers allow easy access to stored bottles and make maximum use of the available storage space*

### Options

- Hinged doors
- Available with 3 or 4 removable shelves or 4 drawers
- Underbench cabinets with 1 removable shelf
- Available with/without fan

- For safety reasons Köttermann recommends that all chemicals cabinets are subject to continuous extraction
- Cabinets without a fan should be connected to a an extraction system

	Dimensions (mm)	
<b>Underbench cabinet, 2 doors</b>	900 x 720 x 515	1200 x 720 x 515
<b>Tall cabinet, door L/R</b>	600 x 1920 x 515	-
<b>Tall cabinet, 2 doors</b>	900 x 1920 x 515	1200 x 1920 x 515

# Rapid response in an emergency

However much care you take working in a laboratory, accidents or even small fires can still happen. But don't worry – we've got it covered. With our First Aid and fire protection equipment to hand you will have everything you need to react quickly and help others in an emergency. From emergency eye-washes, through to First Aid cabinets and their contents in accordance with DIN standards, as well as fire extinguishers and blankets, we offer you a full range of products to ensure that everyone is protected in an emergency.

## BENEFITS TO YOU

- > First Aid equipment right where it is needed
- > Protection as required by the law
- > Everything to hand

*Optional  
integration of  
eye-washes into  
worktops and  
service columns*



## FIRST AID AND FIRE PROTECTION

The wall-mounted First Aid cabinet contains important items such as a First Aid kit and bandages at your fingertips



Alternatively we provide bandage cabinets with contents in accordance with DIN 13169 or DIN 13157



CO<sub>2</sub> or foam fire extinguishers are also available for laboratory installation



Boxes of bandages, specially designed for scientific and chemistry laboratories, provide effective help during less serious accidents in the laboratory



	Dimensions (mm)			Details
<b>EXPLORIS® First Aid cabinet</b>	600 x 480 x 346	600 x 630 x 346	600 x 780 x 346	unfilled
<b>First Aid dressings cabinet 1</b>	1360 x 420 x 200	-	-	contents in accordance with EN 13157
<b>First Aid dressings cabinet 2</b>	1360 x 560 x 200	-	-	contents in accordance with EN 13169
<b>First Aid kit for scientific and chemistry laboratories</b>	400 x 300 x 150	260 x 80	-	contents in accordance with EN 13157
<b>Fire extinguisher K2a</b>	254 x 100 Ø 111	-	-	2 kg CO <sub>2</sub>
<b>Fire extinguisher SG6</b>	210 x 630 Ø 150	-	-	6 kg foam
<b>Eye-wash</b>	-	-	-	in accordance with EN 15154 Part 2
<b>Body shower</b>	-	-	-	in accordance with EN 15154 Part 1

We reserve the right to make amendments to the technical specifications and/or design.



# HAZARDOUS SUBSTANCES EXTRACTED SAFELY

For you, we exceed  
standards

**EXPLORIS**



### **COMPREHENSIVE SAFETY FEATURES AND HIGH ECONOMIC EFFICIENCY**

Enjoy an unpolluted atmosphere with fume cupboards that safely extract hazardous substances and, in doing so, far exceed international standards. This is because we believe that all of the standards are too low for your health. To enable you to monitor all of the functions of your fume cupboard at all times, all EXPLORIS® fume cupboards are fitted with an electronic control and monitoring system, which is touchscreen-operated.

The key element is the EXPLORIS AutoProtect®, which automatically closes the sash when no one is working at the fume cupboard. Cost-effectiveness has also been considered. Our fume cupboards use only as much air as is required for your safety.

# **Fume cupboards**

# Six types of fume cupboard – custom configurable

When it comes to dealing with volatile hazardous substances, powders or aerosols, protecting employees is the number one priority. That is why this kind of work must be carried out in a fume cupboard. Due to its ventilation technology, the EXPLORIS® fume cupboards safely retain hazardous substances and protect the user from contact with substances that pose a risk to health. In addition, the sash made of laminated safety glass ensures that spray and fragments remain within the fume cupboard if there is an incident. The EXPLORIS® range comprises fume cupboards for general use and includes bench-type, distillation or walk-in fume cupboards. There are also specialist fume cupboards: high-performance fume cupboards for work with particularly aggressive substances and radionuclide fume cupboards for use with radioactive isotopes. New to the range is the EXPLORIS VarioTop®, which with its

height-adjustable worktop is the model of ergonomics in the laboratory. All of our fume cupboards can be tailor-made to your needs and adapt perfectly to your particular work process.

## BENEFITS TO YOU

- > Excellent containment capacity as a result of new ventilation design
- > Newly developed control system EXPLORIS TouchTronic® with integrated computer
- > All fume cupboards in the standard product range tested in accordance with EN 14175-3
- > Standard fume cupboard range tested for a durability period of 20 years
- > Electrical cables are halogenated hydrocarbon-free
- > Low operating costs



EXPLORIS VarioTop® fume cupboard



Distillation fume cupboard



Walk-in fume cupboard

## FUME CUPBOARD OVERVIEW

### Fittings

- EXPLORIS TouchTronic®:
  - fume cupboard electronic device with touchscreen to control and monitor all of the functions (see page 96 onwards)
- EXPLORIS AutoProtect®
  - automatic, motor-operated sash (see page 94 onwards)
- EXPLORIS AirMonitor®
  - monitoring function with digital display with choice of volume flow rate or face velocity (see page 97)
- Worktops in a diverse range of materials
- Bright, even lighting in workspaces
- Service outlets on the inside of the fume cupboard
  - easy and safe to reach without having to lean into the interior space
- Cable gland through the inlet profile on the worktop
  - allows the sash to be closed completely even when cables have to be fed into the fume cupboard

### Options

- Custom configure with gas, water and electrical services
  - to support a variety of applications
- Foot switch to operate the sash
  - practical when your hands are full
- Temperature sensor
  - monitors the temperature of the interior space and sets off an alarm when the temperature exceeds the maximum allowable limit
- Waste collection system with electronic filling-level control EXPLORIS LevelControl® (see page 100 onwards)
  - for acids and bases and safety cabinets
  - filling directly from within the fume cupboard



Bench-type fume cupboard



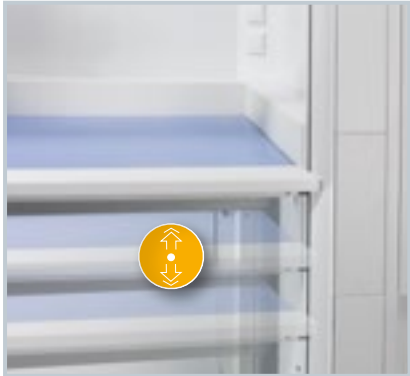
High-performance fume cupboard



Radionuclide fume cupboard

# Which fume cupboard fits your requirements?

Whichever fume cupboard you choose, you have to consider your work processes, your requirements and the available space in your laboratory. The tables show the suitability of the fume cupboards based on the processes undertaken. We are happy to help you choose a suitable fume cupboard.



EXPLORIS VarioTop®  
with height-adjustable worktops

## FUME CUPBOARDS FOR GENERAL USE (BENCH-TYPE, DISTILLATION, WALK-IN, EXPLORIS VarioTop®)

	Suitable	Suitable for moderate use	Not suitable
Organic solvents	x		
Weak acids	x		
Mineral acids	x		
Cold concentrated mineral acids		x	
Hot concentrated mineral acids			x
Hydrofluoric acid			x
Radioactive substances			x
High thermal load			x

## FUME CUPBOARDS FOR GENERAL USE WITH CHEMICAL-RESISTANT SGL LINING

	Suitable	Suitable for moderate use	Not suitable
Organic solvents	x		
Weak acids	x		
Mineral acids	x		
Cold concentrated mineral acids	x		
Hot concentrated mineral acids		x	
Hydrofluoric acid			x
Radioactive substances			x
High thermal load			x



## FUME CUPBOARD AREAS OF APPLICATION

### HIGH-PERFORMANCE FUME CUPBOARD WITH POLYPROPYLENE LINING (HYDROFLUORIC ACID FUME CUPBOARD)

	Suitable	Suitable, but not recommended	Not suitable
Organic solvents		X	
Weak acids		X	
Mineral acids		X	
Cold concentrated mineral acids		X	
Hot concentrated mineral acids		X	
Hydrofluoric acid	X		
Radioactive substances			X
High thermal load	X		

### HIGH-PERFORMANCE FUME CUPBOARD WITH CERAMIC LINING

	Suitable	Not suitable
Organic solvents	X	
Weak acids	X	
Mineral acids	X	
Cold concentrated mineral acids	X	
Hot concentrated mineral acids	X	
Hydrofluoric acid		X
Radioactive substances		X
High thermal load	X	

### RADIONUCLIDE FUME CUPBOARD

	Suitable	Not suitable
Organic solvents	X	
Weak acids	X	
Mineral acids	X	
Concentrated mineral acids		X
Hot concentrated mineral acids		X
Hydrofluoric acid		X
Radioactive substances	X	
High thermal load		X

> Different worktops are available according to the expected conditions. The specific features of the worktops can be found in the Laboratory Furniture chapter on page 47

*We reserve the right to make amendments to the technical specifications and/or design.*

# All-rounders for general use

EXPLORIS® bench-type fume cupboards for general use can be universally installed into the laboratory. They are ideal for handling organic solvents and are suitable for work with cold as well as mineral acids. Depending on the ceiling height of your laboratory, you can choose between a tall and a low design.

If your processes include occasional work with concentrated acids you can choose to fit your bench-type fume cupboard with a lining made of highly resistant SGL. If, on the other hand, you work regularly with hot, concentrated mineral acids then a specially designed, high-performance fume cupboard (see page 82 onwards) from our EXPLORIS® range is the right choice for you. For work with radioactive isotopes we recommend a radionuclide fume cupboard (see page 88 onwards).

## BENEFITS TO YOU

- > Excellent safety features in accordance with EN 14175-3
- > Low operating costs as a result of low air flow volumes
- > Numerous options for individual requirements
- > Innovative EXPLORIS TouchTronic® as standard
- > Variations up to width 2100 mm
- > Extra-deep interior space



## QUALITY

Optional lining with chemical-resistant SGL for occasional work with aggressive, concentrated acids



- > Bench-type fume cupboards are designed for general use in the laboratory

## COMMON FEATURES OF ALL FUME CUPBOARD MODELS

- > An overview of the EXPLORIS® fume cupboards' various benefits and options can be found on page 77
- > More details on the most important innovations and functions can be found on pages 90 to 101 of this chapter

### Fittings

- Sash glazed with laminated safety glass
  - one-piece frame or as telescopic sash
  - fixed panel glazing or with sliding panes
  - extra mechanical protection against fragments and sprays
- For further information on standard features see page 77

### Options

- Electrical sockets in the interior space can be operated by the EXPLORIS TouchTronic® and come with integrated timer functions (see page 98)
  - specially designed for devices that remain stationary when operated in the fume cupboard
- Chemical-resistant SGL lining
  - for occasional work with concentrated or heated acids
- Scaffolding for installation on the back panel of the fume cupboard
  - safe setup of experiment apparatuses
- Drawers in the fume cupboard frame
  - ideal for storing scaffolding
- For further information on available options see page 77

### BENCH-TYPE FUME CUPBOARDS FOR GENERAL USE

	Dimensions (mm)				
Width	1200	1500	1800	2000	2100
Height	2550	2550	2550	2550	2550
Depth	900	900	900	900	900
Useable space height	min. 1128/1428	min. 1128/1428	min. 1128/1428	min. 1128/1428	min. 1128/1428
Working height	900	900	900	900	900

# Ability to withstand acids and high thermal loads

Fume cupboards, usually labelled “high-performance fume cupboards”, are designed with high chemical loads in mind. These chemical loads occur, for example, when boiling strong mineral acids such as sulphuric acid, nitric acid, hydrochloric acid or nitro-hydrochloric acid.

Lined with hard-wearing ceramics or polypropylene, EXPLORIS® high-performance fume cupboards resist any acid attacks. Moreover, due to their design, the high-performance fume cupboards’ special air vent enables work with high thermal loads.

With the acid-resistant ceramics, high-performance fume cupboards can be used universally for all requirements except for works with hydrofluoric acid where a polypropylene lining is necessary, because hydrofluoric acid attacks siliceous materials such as glass and ceramics very quickly.

For work with radioactive isotopes, we recommend another specialised fume cupboard from the EXPLORIS® range: the radionuclide fume cupboard (see page 88 onwards).

## BENEFITS TO YOU

- > Special ventilation technology for work with high heat build-up
- > Highly resistant for work with concentrated mineral acids
- > Numerous options available for individual requirements
- > Innovative EXPLORIS TouchTronic® as standard
- > Extra-deep interior space
- > Complies with EN 14175-7



### QUALITY

Hydrofluoric acid-resistant: polypropylene lining

### QUALITY

Acid-resistant ceramics for universal use (excluding use with hydrofluoric acid)



- > High-performance fume cupboards are designed with high chemical and thermal loads in mind

## HIGH-PERFORMANCE FUME CUPBOARDS

### COMMON FEATURES OF ALL FUME CUPBOARD MODELS

- > An overview of the EXPLORIS® fume cupboards' various benefits and options can be found on page 77
- > More details on the most important innovations and functions can be found on pages 90 to 101 of this chapter

#### Fittings

- Sash glazed with laminated safety glass
  - one-piece frame or as telescopic sash
  - fixed panel glazing
  - for extra mechanical protection against fragments and sprays
- Lining made of
  - acid-resistant ceramics
  - polypropylene: specifically designed for work with hydrofluoric acid\*

*\*When working in polypropylene fume cupboards, the interior space temperature should not exceed 75–80° C*
- Temperature sensor
  - monitors the temperature of the interior space and sets off an alarm when the temperature exceeds the maximum allowable limit
- For further information on standard features see page 77

#### Options

- Sash glazed with polycarbonate
  - specifically designed for use with hydrofluoric acid
- Scaffolding for installation on the back panel of the fume cupboard
  - for the safe setup of experiment apparatuses
- Drawers in the fume cupboard frame
  - ideal for storing scaffolding
- For further information on available options see page 77

### HIGH-PERFORMANCE FUME CUPBOARDS

	Dimensions (mm)		
Width	1200	1500	1800
Height	2550	2550	2550
Depth	900	900	900
Useable space height	min. 1128	min. 1128	min. 1128
Working height (table-top height)	900	900	900



# Tall experiment set-ups contained securely

EXPLORIS® distillation and walk-in fume cupboards are there for when you need a large working height, for example in distillation or preparative column chromatography. Both types of fume cupboard meet the requirements for general use in the laboratory.

Distillation fume cupboards are equipped with a specially designed low worktop. With walk-in fume cupboards, you have the additional benefit of being able to move large and heavy equipment directly into the interior space on a mobile table.

Depending on the extract duct, distillation and walk-in fume cupboards require a ceiling height of approx. 3 m.

## BENEFITS TO YOU

- > Sufficient space for tall experiment set-ups
- > Numerous options available for individual requirements
- > Innovative EXPLORIS TouchTronic® as standard
- > Variations up to width 2100 mm



## FLEXIBILITY

For large, heavy apparatuses, the option to move directly into interior space on a mobile wheeled table

## ERGONOMICS

Specially designed low worktop for tall experiment set-ups



- > Distillation and walk-in fume cupboards provide ample working height

## DISTILLATION FUME CUPBOARDS | WALK-IN FUME CUPBOARDS

### COMMON FEATURES OF ALL FUME CUPBOARD MODELS

- > An overview of the EXPLORIS® fume cupboards' various benefits and options can be found on page 77
- > More details on the most important innovations and functions can be found on pages 90 to 101 of this chapter

#### Fittings

- Telescopic sash glazed with laminated safety glass with fixed panel glazing or sliding panels
  - extra mechanical protection against fragments and sprays
- Distillation fume cupboards are equipped with two drawers under the worktop
  - ideal for storing scaffolding
- For further information on standard features see page 77

#### Options

- Electrical sockets in the interior space can be operated by the EXPLORIS TouchTronic® and come with integrated timer functions (see page 98)
  - specially designed for devices that remain stationary when operated in the fume cupboard
- Scaffolding for installation on the back panel of the fume cupboard
  - for the safe set-up of experiment apparatuses
- For further details on available options see page 77

### DISTILLATION AND WALK-IN FUME CUPBOARDS

	Dimensions (mm)				
Width	1200	1500	1800	2000	2100
Height	2550	2550	2550	2550	2550
Depth	900	900	900	900	900
Useable space height of distillation fume cupboard	min. 1528	min. 1528	min. 1528	min. 1528	min. 1528
Useable space height of walk-in fume cupboard	min. 2028	min. 2028	min. 2028	min. 2028	min. 2028
Distillation fume cupboard working height	500	500	500	500	500

# Flexible working height lends particular adaptability

The new EXPLORIS VarioTop® is the model of flexibility and ergonomics. With the EXPLORIS VarioTop®, you can electronically adjust the worktops from a height of 750 to 950 mm to suit your requirements. This is easy and convenient with the innovative EXPLORIS TouchTronic® electronic control system. Meanwhile, the intelligent sash control EXPLORIS AutoProtect® ensures that the sash automatically closes right up to the relevant worktop height.

EXPLORIS VarioTop® fume cupboards are completely flexible and can be customised to the exact requirements of the most diverse experiment set-ups.

Furthermore, EXPLORIS VarioTop® fume cupboards are particularly ergonomic as every user can adjust their own working height at the touch of a button.

## BENEFITS TO YOU

- > Work ergonomically at seated and standing working heights
- > Worktop height individually adjustable for users or according to experiment requirements
- > Programmable positions for regularly used working heights
- > Numerous options available for individual requirements
- > Innovative EXPLORIS TouchTronic® as standard



### FLEXIBILITY

Electrically adjust worktop between 750 and 950 mm – ergonomic and back-friendly

### INNOVATION

Easy and convenient worktop adjustment using EXPLORIS TouchTronic®

### SAFETY

EXPLORIS AutoProtect®: offers proper closure of the sash in every worktop position



- > EXPLORIS VarioTop® fume cupboards can be adjusted to different working heights using their height-adjustable worktops

## HEIGHT-ADJUSTABLE FUME CUPBOARDS – EXPLORIS VarioTop®

### COMMON FEATURES OF ALL FUME CUPBOARD MODELS

- > An overview of the EXPLORIS® fume cupboards' various benefits and options can be found on page 77
- > More details on the most important innovations and functions can be found on pages 90 to 101 of this chapter

#### Fittings

- Sash glazed with laminated safety glass
  - extra mechanical protection against fragments and sprays
- For further information on standard features see page 77

#### Options

- Electrical sockets in the interior space can be operated by the EXPLORIS TouchTronic® and come with integrated timer functions (see page 98)
  - specially designed for devices that remain stationary when operated in the fume cupboard
- Scaffolding for installation on the back panel of the fume cupboard
  - safe setup of experiment apparatuses
- For further information on available options see page 77

#### EXPLORIS VarioTop®

	Dimensions (mm)		
Width	1200	1500	1800
Height	2550	2550	2550
Depth	900	900	900
Useable space height	min. 1128–1528	min. 1128–1528	min. 1128–1528
Working height	750 to 950	750 to 950	750 to 950

# Specialist area: radioactive substances

EXPLORIS® radionuclide fume cupboards are specially designed for use with radioactive substances. With radiation protection, easy decontamination and containment, radionuclide fume cupboards ensure that throughout this type of delicate work you will be safe.

An optional 30 mm thick lead plate guarantees radiation protection below the worktop. Due to the fume cupboard's high load capacity of 1.5 t, users can be shielded from radioactive experiment areas with heavy lead lining.

The stainless steel worktop is easy to clean and has an extra-high upstand, which securely retains spilt liquids. Do you have greater requirements for decontamination?

Then we can will also equip your radionuclide fume cupboard with a fully welded, stainless steel chamber on request.

EXPLORIS® radionuclide fume cupboards provide you with the excellent containment that is afforded by our bench-type fume cupboards. The polycarbonate sash is fitted with openings for pulling on gloves. This allows you to handle radioactive substances within the fume cupboard without coming into direct contact with them.

## BENEFITS TO YOU

- > High load capacity for heavy lead lining
- > Worktops with optional lead lining to shield the foot area
- > Extremely easy to decontaminate due to the stainless steel worktop and chamber
- > Filter cabinets with optional carbon and active carbon filter available
- > Numerous options available for individual needs
- > Innovative EXPLORIS TouchTronic® as standard



### SAFETY

Radiation protection with 30 mm thick lead plate below the worktop

### SAFETY

Contactless handling of radioactive substances using glove openings in the sash panels

- > Radionuclide fume cupboards offer protection when handling radioactive substances



## COMMON FEATURES OF ALL FUME CUPBOARD MODELS

- > An overview of the EXPLORIS® fume cupboards' various benefits and options available can be found on page 77
- > More details on the most important innovations and functions can be found on pages 90 to 101 of this chapter

### Fittings

- One-piece, polycarbonate sash with glove opening
  - for contamination-free work in the fume cupboard with gloves
- Stainless steel worktop
  - easy to clean
  - with 1.5 t load capacity specifically designed for heavy lead shields
- For further information on standard features see page 77

### Options

- Lead lining beneath worktop
- Fully welded, stainless steel chamber on request
- For further information on available options see page 77

## RADIONUCLIDE FUME CUPBOARDS

	Dimensions (mm)	
Width	1200	1500
Height	2550	2550
Depth	900	900
Useable space height	min. 1128 mm	min. 1128 mm
Working height	900	900

# The perfect fit adapted to your needs

The fume cupboards in our EXPLORIS® range are highly modular. To meet the most diverse requirements in the day-to-day running of the laboratory and to provide optimal support for work processes, it could be no other way. We are happy to configure your EXPLORIS® fume cupboard exactly the way you need it.

Worktops and linings are available for all types of use in a variety of materials. Gas, water and electrical fittings can be installed where they are required. Special cabinets for chemical storage can also be integrated into the fume cupboard.

Even low ceiling heights are not a problem: there is still enough space for specially designed, low-ceiling models of the EXPLORIS® bench-type fume cupboard to fit beneath ceiling heights of 2.7 m. This is due to the fume

cupboards' reduced height in combination with a two-piece telescopic sash.

Our range also includes country-specific variations such as different electrical standards for electrical sockets and fuses as well as extract connections for use in accordance with international standards.

The appropriate fume cupboard can be quickly custom-built for you from the numerous modular units in the EXPLORIS® fume cupboard range.

## 1 WIDTHS

Five different fume cupboard widths from 1200 to 2100 mm

### DESIGN HEIGHTS

Height options for lower ceilings

## 2 VENTILATION

For efficient extraction, DN 200 and DN 250 connections are available

## 3 EXPLORIS AirMonitor® / EXPLORIS AirControl®

Accommodates country-specific requirements

Choice of volume flow rate or face velocity readings

Options of volume flow rate control

## 4 SASH

One-piece sash or telescopic sash glazed with laminated safety glass

- optional sliding glass panes

- available in polycarbonate

## 5 ELECTRICS

Electrical options for all international requirements

Electrical sockets on the fume cupboard columns, in the rail below the sash and in the chamber

Circuit protection can be integrated

## 6 GASES AND WATER

Different gas and water fittings for various purity levels

## 7 WORKTOPS

Various worktop materials for all requirements

## 8 UNDERBENCH CABINETS

For combustible hazardous substances, acids and bases, other chemicals or with knee-space panels

## MODULARITY



# Electrical Equipment

The EXPLORIS® fume cupboards can be equipped with all of the electrical devices you need in the laboratory – you are free to configure them according to your needs. This is because many elements like electrical sockets and switches are on media cassettes, which can be used to customise or upgrade fume cupboards.

As well as your electrical equipment, your fume cupboard can be equipped on request with explosion prevention in accordance with the ATEX Directive.

## BENEFITS TO YOU

- > Range of electrical sockets available to meet requirements of all countries
- > Options for circuit protection:
  - MCBs as standard
  - RCDs can be integrated to individual circuits
- > Non-halogenated plastic wiring
- > Country-specific sockets available if required

*Electrical sockets can be built in where you need them: below the sash, in the rail ...*



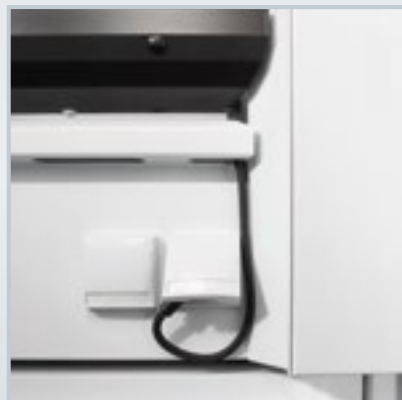
*... in the fume cupboard columns ...*



*... or in the interior space: a special feature of the EXPLORIS® fume cupboards; electrical sockets can be controlled from the exterior using the touchscreen panel*



*Cable glands allow the sash to close completely in spite of an electrical cable and therefore guarantee optimal safety*



# Water and gases

Water and gas are required in the laboratory in various types and qualities. Outlets for industrial water, cooling water and salted or distilled water are easily accessible from the sides of the interior space directly above the in-built drip cup. Alternatively, the worktop can be fitted with a large sink that is served by a bench-mounted tap.

For gases, there are two types of fittings: the standard type for gases up to a 4.5 purity and high-purity type in brass or stainless steel for gases with a purity greater than 4.5. The gas outlets are also easily and safely accessible without having to lean into the fume cupboard chamber.

## BENEFITS TO YOU

- > Up to 6 outlets as standard for water
- > Up to 12 outlets available for gases

*Standard gas fittings are equipped with an adjustable extraction valve (without fine adjustment of flow rate)*



*Water fittings have appropriate valves for different water qualities*



*High-purity gas fittings are available in brass or stainless steel according to gas type. They can be fitted with pressure regulators and fine adjustment extraction valves*



# Automatically safe

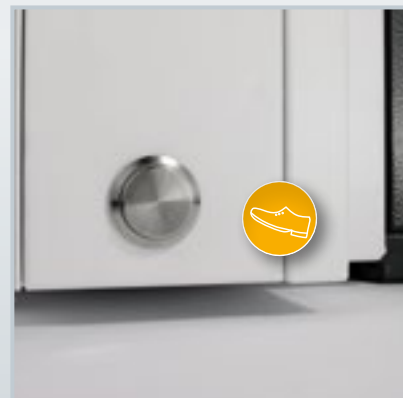
EXPLORIS AutoProtect® meets the highest safety and ergonomic demands. This can be attributed to the fact that the automatic protective mechanism closes the sash when no one is working at the fume cupboard and minimises the hazard potential for the user.

Because your safety is so important to us, we equip each of our fume cupboards with EXPLORIS AutoProtect® as standard. And if you wish, our EXPLORIS CloseGuard® can monitor the sash to ensure that it does not close while an obstacle is protruding from inside the fume cupboard.



EXPLORIS CloseGuard®: a light grid monitors the sash opening and stops the sash from automatically closing when there is an obstacle in the way

With the slider on the touchscreen, the fume cupboard sash can be moved and stopped accurately



Got your hands full? Then the sash can also be operated with an optional foot switch

## BENEFITS TO YOU

- Self-closing sash
  - when you leave the fume cupboard, the EXPLORIS AutoProtect® closes the sash automatically
- Ergonomic, manually operated EXPLORIS SoftMatic®
  - opens and closes the sash with just the touch of a button
- Integrated sash stop
  - the electronic non-impact limiter prevents the sash from opening beyond the permitted working height
- User-friendly slider on the touchscreen
  - via the EXPLORIS TouchTronic® electronic control system, the sash can be easily and accurately operated
- Optional foot switch
  - the footswitch allows the sash to open automatically when your hands are full
- Optional EXPLORIS CloseGuard®
  - light barrier to monitor the sash aperture
  - ensures the sash does not automatically close while there is something obstructing the sash
  - if the sash is already moving, it is immediately stopped when EXPLORIS CloseGuard® identifies an obstacle

EXPLORIS SoftMatic®:  
the touch of a button  
is enough to activate  
or stop the front sash



# High-tech, intuitive touchscreen

Innovations are not an end in themselves. They should help you in your work by making the processes in your laboratory easier and safer.

With this in mind, our new fume cupboard electronic equipment provides an intelligent solution. With EXPLORIS TouchTronic® you can see at once all of the functions of your fume cupboard on an easy-to-use

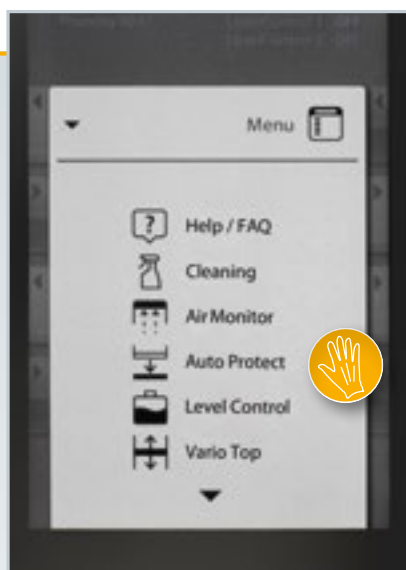
touchscreen and have them firmly under control. From monitoring and regulating the extraction to operating and controlling the sash, waste collection unit, electrical sockets and timers. Even the consumption costs can be displayed. Never before have monitoring and control been so simple.

*The innovative  
EXPLORIS TouchTronic®  
user interface enables  
the simple control  
of numerous fume  
cupboard functions*



## BENEFITS TO YOU

- > Easy-to-use touchscreen
- > EXPLORIS AirMonitor® safely monitors the extraction function
- > Slider on the EXPLORIS AutoProtect® for intuitive sash operation
- > EXPLORIS CloseGuard® monitors the sash opening
- > Operation of electrical sockets in the fume cupboard
- > Updates, remote diagnostics and parameter setting via USB infrared port
- > EXPLORIS LevelControl® visual display
- > Operation of EXPLORIS VarioTop®
- > Temperature sensor monitors air temperature
- > Integration of customary fume cupboard regulatory systems
- > Communication with building management systems
- > Control of external devices



### > Easy-to-use touchscreen

The EXPLORIS TouchTronic® user interface can be intuitively operated with its touchscreen in any of six languages. The touchscreen has a chemical-resistant surface, which is made of glass and which can even be handled with ease and precision while wearing gloves.



### > EXPLORIS AirMonitor®

Monitors the fume cupboard volume flow-rate ( $\text{m}^3/\text{h}$ ) or the face velocity ( $\text{m}/\text{s}$ ) of air into the fume cupboard. If these fall below the preset allowable limit, this will be signalled visually and aurally. The acoustic alarm can be switched off. The system will operate in the event of a power cut with its battery back-up.



### > EXPLORIS AutoProtect® slider for sash operation

The slider position on the touchscreen displays the opening height of the sash. The position of the sash can easily be altered by moving the slider or touching the target position.



#### > **Operating electrical sockets in the fume cupboard**

Electrical sockets in the interior space can be conveniently switched on or off with EXPLORIS TouchTronic®. The integrated countdown timer can stop a process after a preset period of time. The timer switch allows the device to be switched on or off for a preset period of time, e.g. deactivating all electrical sockets at the weekends.



#### > **EXPLORIS CloseGuard®**

If the optional light barrier identifies an obstacle protruding from inside the interior space of the fume cupboard, the sash will be stopped automatically. EXPLORIS TouchTronic® displays a message to inform the user.



#### > **Updates, remote diagnostics and remote maintenance via USB infrared port**

The integrated logbook function continuously saves all important adjustment and operational parameters and alarm messages. Inserting a USB stick allows the data to be read and then sent by email. After analysis of the data, adjusted parameters can be uploaded to the fume cupboard, if necessary, via the USB stick.





**> Temperature sensor to monitor the air temperature**

When a temperature sensor is integrated into the fume cupboard, the temperature inside the fume cupboard will be displayed. If a critical value is exceeded, the user is informed.



**> EXPLORIS LevelControl® visual displays**

Up to two liquid level indicators for waste containers can be monitored using EXPLORIS TouchTronic®.



**> Operating EXPLORIS VarioTop®**

With EXPLORIS TouchTronic®, the worktop height in the EXPLORIS VarioTop® fume cupboard (see from page 86) can be continuously adjusted from 750 to 950 mm. With three programmable settings, the optimal working height can be quickly set up for an experiment or a person.

# Storage and disposal within the fume cupboard itself

When working at the fume cupboard, it saves you time to have all the materials you need at hand. Therefore, the EXPLORIS® bench-type fume cupboards can be supplied with all kinds of cabinets. Knee-space lining is also possible.

As an optional feature, all underbench cabinets can be fitted with EXPLORIS LevelControl®, our waste collection system for fume cupboards. For this purpose, a collection funnel, which collects liquid waste, is mounted on the fume cupboard worktop. The waste reaches a storage container via a tube. A sensor monitors the container and warns you in good time about overfilling. The signal is forwarded to the EXPLORIS TouchTronic®.

With EXPLORIS LevelControl®, you work just as ergonomically as safely because hazardous substances are collected directly from the fume cupboard into a suitable container.

## BENEFITS TO YOU

- > Different underbench cabinets for general storage and for hazardous substances
- > Waste collection system EXPLORIS LevelControl®
- > Collection of waste at the point of source
  - sensor to monitor the liquid level of the collection container
  - warning signal via EXPLORIS TouchTronic®
  - all elements (containers, tubes, hoppers, taps) are made of conductive materials (PTFE and HDPE) to avoid build up of static charge

*Underbench cabinets – such as the acids and bases cabinet shown here – are available in a number of different variations fitted below fume cupboards*



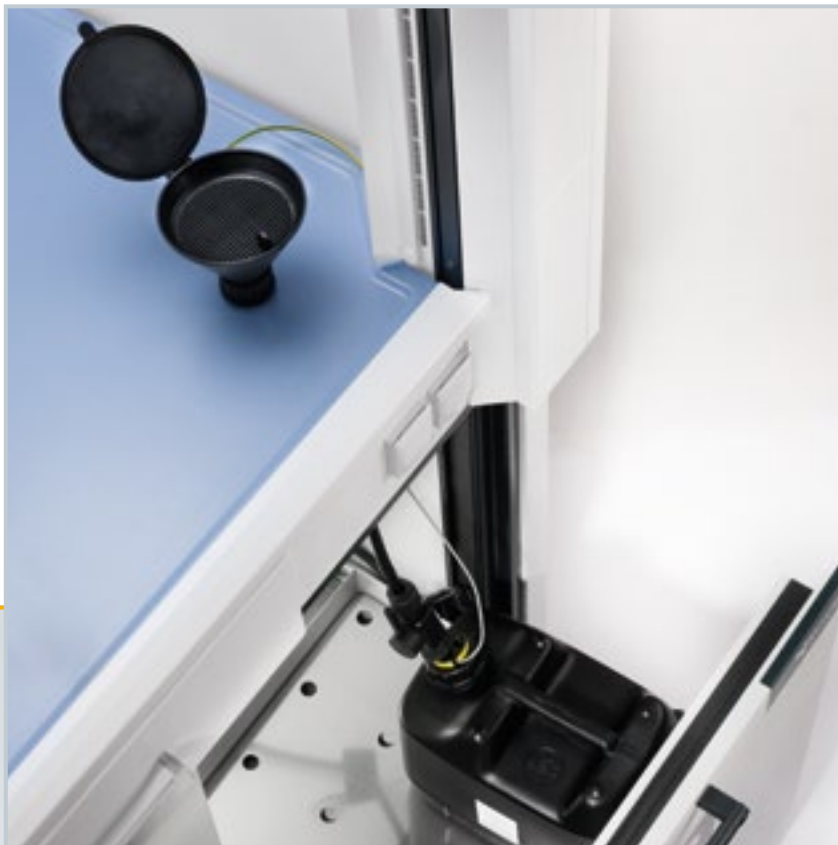
*A funnel embedded into the worktop gathers and stores liquid waste within the fume cupboard*



*The drawer in the fume cupboard rail is ideal for storing scaffolding*

## UNDERBENCH

EXPLORIS  
LevelControl® :  
a sensor monitors  
the liquid level of the  
waste container –  
once the container is  
full, a warning  
signal appears on  
the touchscreen



### Underbench Options

- Standard pedestal cabinets
  - general storage
- Mobile cabinets
  - moveable cabinets on lockable castors
- Acids and bases cabinets
  - storage of acids and bases or collection of aqueous acidic waste
- Safety cabinets in accordance with EN 14470-1
  - storage of combustible solvents or waste containing combustible solvents
- Knee-space panels below the worktop
- EXPLORIS LevelControl® waste collection system in two varieties:
  - standard for aqueous solutions
  - explosion-proof for organic solvents



## ADDITIONAL INFORMATION

Page 104 - 105 > Sales and Marketing

Page 106 > Terms and Conditions of delivery, installation  
and mechanical and electrical works



## Contacting Köttermann

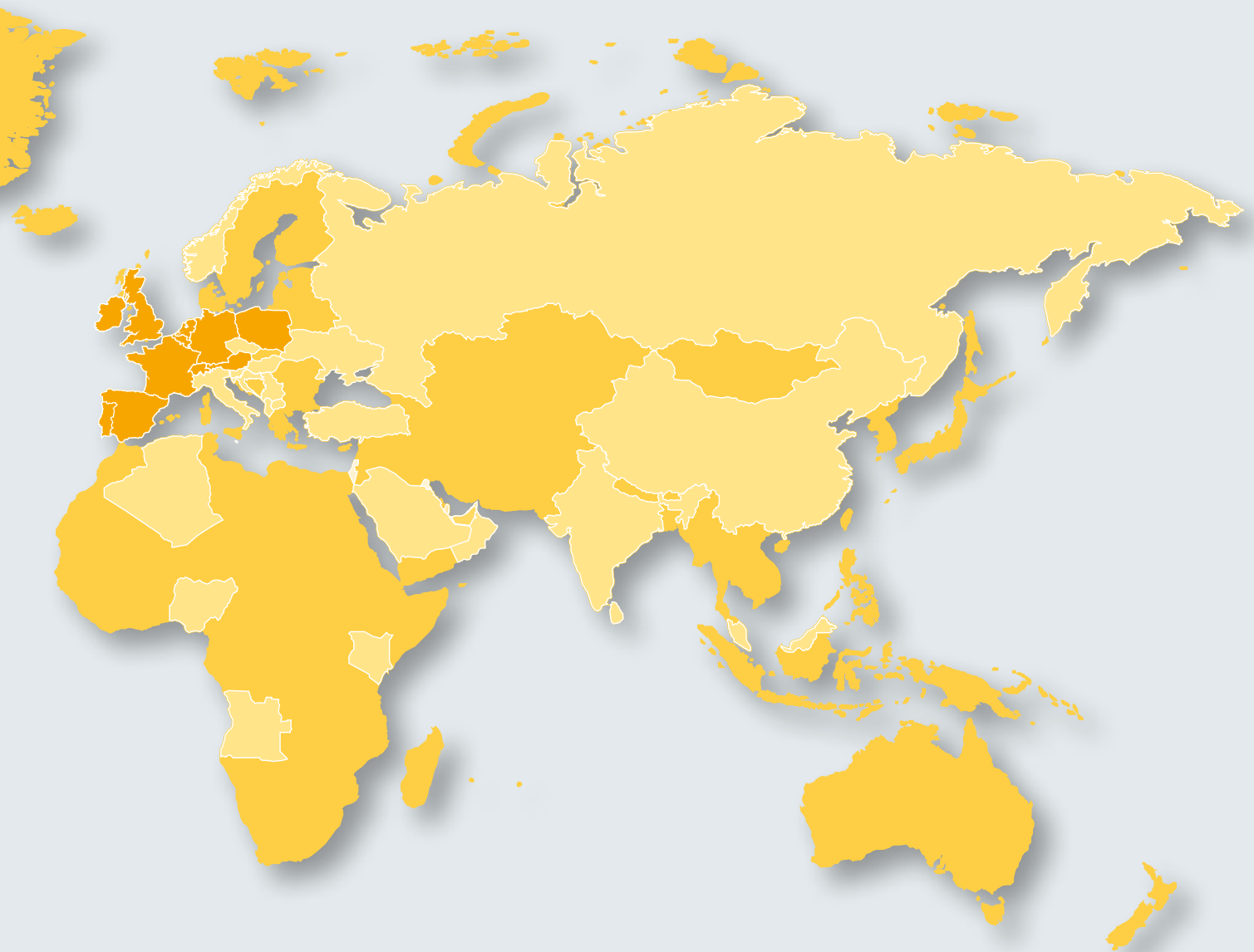
### **PERSONAL CONTACT – ON SITE FOR YOU AROUND THE WORLD**

Do you have questions, requests or are in need of advice?  
With our subsidiaries and authorised distributors around  
the world, we are happy to help you. Get in touch with us,  
you can find the right person to contact on our website at:  
[www.koettermann.com/worldwide](http://www.koettermann.com/worldwide)

**[www.koettermann.com/worldwide](http://www.koettermann.com/worldwide)**



You can find all contact  
details on our website  
[www.koettermann.com/  
worldwide](http://www.koettermann.com/worldwide)



- Countries with subsidiaries
- Countries served by the Köttermann Export Team in Germany
- Countries with authorised distributors

# Terms and Conditions of delivery, installation and mechanical and electrical works

## 1. Scope of Application

If and when the Purchaser (hereinafter known as the „Customer“) has also requested Installation and Mechanical and Electrical as part of the contract, the following Terms and Conditions of Delivery/Installation and Mechanical and Electrical shall apply as a supplement to the General Terms and Conditions of Business (Terms and Conditions of Delivery and Payment) of Köttermann GmbH & Co KG and its subsidiaries hereinafter known as „Köttermann“. Customer's supplementary terms and conditions as well as additional agreements shall be binding only if and when Köttermann has accepted them in writing.

## 2. Terms and Conditions for Delivery

- 2.1. In the case of deliveries of more than 5 cbm and/or the delivery of safety cupboards and/or the delivery of fume cupboards, the Customer is obligated to complete the "Delivery Checklist" and return it to Köttermann no less than 12 working days before the loading date.
- 2.2. The shipping vehicle must be able to reach and leave the unloading position without being subject to any hazards. This presumes an approach which has been adequately secured and can be used by heavy lorries without hindrance. If this requirement has not been fulfilled, the delivery must be postponed at the Customer's expense.
- 2.3. The direct drive access to the building must have a minimum height of 4.00 m and a width of 2.60 m to prevent any damage to the building (e.g. canopy).
- 2.4. The route from the point of unloading to the point of use must be free of obstacles and obstructions of any kind and have a minimum lateral clearance of 1.30 m and a minimum vertical clearance of 2.10 m.
- 2.5. If there is a lift in the building, it will be used wherever possible. The Customer is responsible for the protection of the lift (protective coverings). All costs incurred for using the lift shall be borne by the Customer.
- 2.6. In principle, it is possible for the Customer to pick up the materials himself after consultation with Köttermann at the time the order is placed. The Customer is then obligated to pick up the goods at the agreed time. Incoterms may apply at their current version upon agreement between client and Köttermann. If and when Köttermann incurs additional expenses because the Customer has postponed/cancelled picking up the materials himself due to reasons for which he is accountable, said expenses shall be borne by the Customer. The transfer of perils for the goods shall pass to the Customer once they have been set down in the cargo area. The Customer picking up the materials himself or the shipping agent he has engaged, is responsible for the transport and secure loading of the goods.

## 3. Condition of the Rooms

- 3.1. Köttermann furniture is of very high quality. Since it can be easily damaged when other work is done around it, the laboratory rooms must be finished to such an extent on the day of the delivery that no further work remains to be done on site by other tradesmen.
- 3.2. After the individual units have been delivered, the Customer shall ensure that these rooms are locked. In all respects, the Customer shall take the same measures for the protection of the Köttermann goods that he would take to protect his own possessions.

- 3.3. If the Köttermann goods which are delivered cannot be taken directly to the site because the rooms have not yet been completed, they will as a rule be stored for the interim in the Customer's building. These rooms must also be of adequate size, suitable for storage, dry and have doors and windows which can be locked. Köttermann will carry out the subsequent transport from the interim storage location to the Installation site; this service will be billed separately.
- 3.4. The Customer shall provide parking spaces at no charge and suitable welfare facilities for the Köttermann Installation personnel.

## 4. Installation and Mechanical and Electrical

- 4.1. The Mechanical and Electrical and Installation of all the individual components shall be fitted in accordance with the Köttermann Installation drawings which have been signed off by the Customer.
- 4.2. All of the laboratory units will be aligned and given a rough cleaning after completion of the Installation. Thorough cleaning shall be done by the Customer. Köttermann will dispose of the packaging material.
- 4.3. Unless specified as a component of the order, the intake and outlet air ducts and their connection do not form part of the standard scope of the delivery.
- 4.4. All of the water and waste pipes within the laboratory furniture will be connected in accordance with applicable standards of technology in the course of the Installation, if and when Köttermann has been engaged to perform this work. The pipes within the laboratory furniture shall be deemed to end at the transfer point in the Customer's rooms; the point must be agreed between Köttermann and the Customer in advance of the Installation work. The Customer shall install stop valves on his side of the transfer points. The Customer shall bear any and all additional expenses incurred as a consequence of varying transfer points or types of transfer connections.
- 4.5. All of the electrotechnical wiring within the laboratory furniture will be connected in accordance with applicable standards of technology in the course of the installation, if and when Köttermann has been engaged to perform this work. The electrical cables within the laboratory furniture shall be connected to the distribution board. The position of the distribution board should be agreed between Köttermann and the Customer in advance of the Mechanical and Electrical, but shall be no less than 5 m. The Customer shall bear any and all additional expenses incurred as a consequence of varying transfer points and electrical supply cables which are too short.
- 4.6. Köttermann shall connect the service supply and waste disposal pipes within the laboratory furniture to the Customer's transfer points for those services which are part of the Köttermann order. The connections shall be made in accordance with applicable rules and regulations and shall, if so prescribed, be documented.
- 4.7. Fume extract duct work shall be installed in accordance with appropriate standards. The Customer is responsible for making openings in ceilings and walls and closing the openings in compliance with professional standards after completion of the Mechanical and Electrical. The materials, equipment and scaffolding required for this work shall also be a part of the Customer's remit.

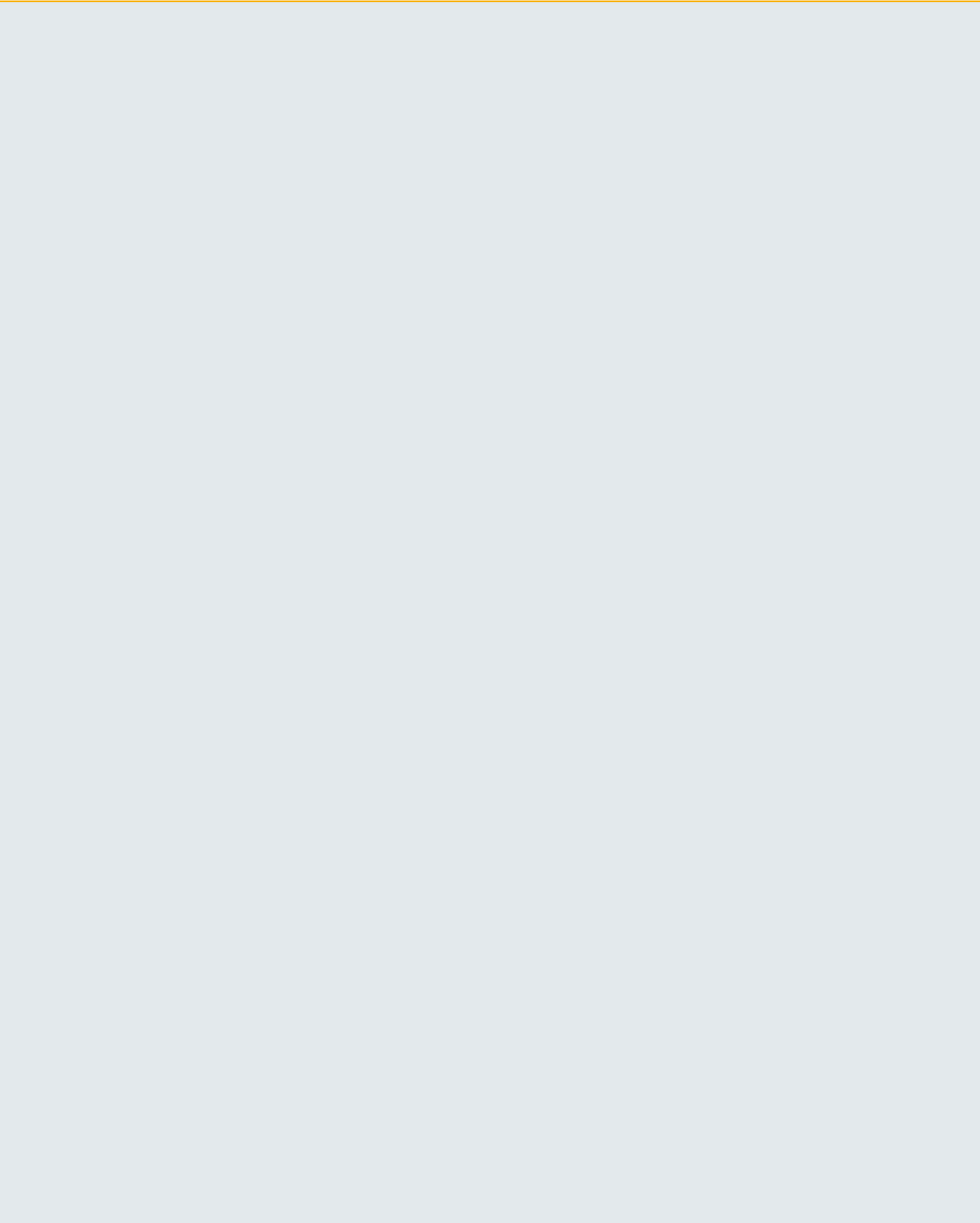
- 4.8. Changes, special services and additional services which are not part of the scope of the Installation and Mechanical and Electrical will be billed separately on the basis of individually documented installation reports which have been signed by the Customer.
- 4.9. If delivery, Mechanical and Electrical, Installation or commissioning are delayed due to circumstances for which the Customer is accountable, the Customer shall reimburse Köttermann for any and all additional expenses actually incurred as a consequence, including the costs for waiting time, wage surcharges and additional travel time to and from the site which may be required by the Köttermann Installation personnel.

## 5. Acceptance

- 5.1. Köttermann requires acceptance of the work after completion of the Installation. If the Customer does not report any snagging within 12 working days, the work shall be deemed accepted.
- 5.2. At the request of Köttermann, parts of the work which are in themselves complete may be accepted separately.
- 5.3. The acceptance shall be recorded in writing in a joint record which shall be signed by both Parties. Any and all reservations related to known defects as well as any and all objections by the Customer shall be noted in the written record. Each of the Parties shall receive one copy.

## 6. Warranty and Liability

- 6.1. Any and all defects in the work which are proven to be a result of defective work by the Köttermann Installation personnel shall be remedied in accordance with the provisions below.
  - 6.1.1 Köttermann must be notified in writing of any defects as soon as they are detected
  - 6.1.2 The Customer shall give Köttermann reasonable time to rectify the defective work.
  - 6.1.3 If and when Köttermann does not rectify the work within a reasonable time or the rectified work is still not accepted and the Customer cannot be reasonably expected to allow a further attempt to rectify the work, then the Customer is entitled to legal claims due to defects.
- 6.2. Defects due to claims shall expire after 12 months, the said period commencing upon acceptance of the work.
- 6.3. If and when it is determined that the defect which was the subject of the objection is not the fault of Köttermann, Köttermann shall be entitled to bill the Customer for the time the costs incurred in accordance with the current valid price list to the extent that the Customer was culpable of intent or gross negligence in reporting the defect.
- 6.4. The warranty regulations of the VOB/B (Contract Award and Contract Code for Construction Work) shall have overriding priority with respect to construction work to the extent that these regulations have been agreed between the Parties.
- 6.5. Otherwise, Köttermann's liability for losses and damage shall be assessed in accordance with the Köttermann General Terms and Conditions of Business (Terms and Conditions of Delivery and Payment) mentioned in Item 1 above.







# OVERVIEW

> Laboratory furniture

# OVERVIEW | LABORATORY FURNITURE

## UNDERBENCH PEDESTAL CABINETS, STANDING HEIGHT

Height: 870 mm | Cabinet depth: 500 mm; where labelled, a shallow version is available with a depth of 350 mm



Installation



Waste unit



Accessible plinth



Equipment pull-out

Width (mm)	450	600	450	600	450	600	450	600	450	600	450	600	600	600	600	600
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Shallow version, depth 350 mm	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
No. of removable shelves (as standard)	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-



Width (mm)	900	1200	900	1200	900	1200	900	1200	900	1200	900	1200	900	1200
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	X
Shallow version, depth 350 mm	-	-	X	X	-	-	-	-	-	-	-	-	-	-
No. of removable shelves (as standard)	1	1	1	1	1	1	1	1	-	-	-	-	-	-



Corner cabinet with removable shelves



Corner cabinet with removable shelves



Corner cabinet with pull-out shelf



Corner cabinet with pull-out shelf



Installation



Accessible plinth



Equipment pull-out

Width (mm)	900	900	900	900	900	1200	900	1200	900	1200
Optional lock	X	X	X	X	X	X	-	-	X	X
No. of removable shelves (as standard)	1	1	-	-	-	-	-	-	-	-

## UNDERBENCH PEDESTAL CABINETS, SITTING WORKING HEIGHT

Height: 720 mm | Cabinet depth: 500 mm; where labelled, a shallow version is available with a depth of 350 mm



Installation



Waste unit



Accessible plinth



Equipment pull-out

Width (mm)	450	600	450	600	450	600	450	600	450	600	450	600	600	600	600	600
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Shallow version, depth 350 mm	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
No. of removable shelves (as standard)	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Stationery version	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
Stationery version with hanging files	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-



Installation

Accessible plinth

Width (mm)	900	1200	900	1200	900	1200	900	1200	900	1200	900	1200	900	1200	900	1200
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	X	-	-
Shallow version, depth 350 mm	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
No. of removable shelves (as standard)	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-

## MOBILE CABINETS, SITTING WORKING HEIGHT

Height: 590 mm | Cabinet depth: 500 mm



Width (mm)	423	573	600	423	573	600	423	573	600	423	573	600	846	1146	846	1146	846	1146	846	1146
Optional lock	-	-	-	X	X	X	X	X	X	X	X	X	-	-	X	X	X	X	X	X
Stationery version with hanging files	-	-	-	-	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-	-

Mobile drawer units come as lockable version only.

We reserve the right to make amendments to the technical specifications and/or design.

# OVERVIEW | LABORATORY FURNITURE

## MOBILE CABINET, STANDING WORKING HEIGHT

Height: 740 mm | Cabinet depth: 500 mm



Width (mm)	423	573	600	423	573	600	423	573	600	423	573	600	423	573	600
Optional lock	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X
No. of removable shelves (as standard)	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-



Width (mm)	423	573	600
Optional lock	X	X	X
No. of removable shelves (as standard)	-	-	-



Width (mm)	846	1146	846	1146	846	1146	846	1146	846	1146	846	1146	846	1146
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	X
No. of removable shelves (as standard)	1	1	1	1	-	-	-	-	-	-	-	-	-	-

## SUSPENDED CABINETS, STANDING WORKING HEIGHT

Height: 630 mm | Cabinet depth: 500 mm



Width (mm)	423	573	600	423	573	600	423	573	600	423	573	600	423	573	600
Optional lock	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X
No. of removable shelves (as standard)	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-



Waste unit

Installation

Width (mm)	423	573	600	573	600	573	600
Optional lock	X	X	X	-	-	-	-
No. of removable shelves (as standard)	-	-	-	-	-	-	-



Width (mm)	846	1146	846	1146	846	1146	846	1146	846	1146	846	1146	846	1146
Optional lock	-	-	X	X	X	X	X	X	X	X	X	X	X	X
No. of removable shelves (as standard)	1	1	1	1	-	-	-	-	-	-	-	-	-	-



Corner cabinet with removable shelves

Corner cabinet with removable shelves

Corner cabinet with semi-circular shelf

Corner cabinet with semi-circular shelf

Installation

Width (mm)	900	900	900	900	846	1146
Optional lock	X	X	X	X	X	X
No. of removable shelves (as standard)	1	1	-	-	-	-

## SUSPENDED CABINETS, SITTING WORKING HEIGHT

Height: 480 mm | Cabinet depth: 500 mm



Width (mm)	423	573	600	423	573	600	423	423	846	1146	846	1146	846	1146	846	1146
Optional lock	-	-	-	X	X	X	X	X	-	-	X	X	X	X	X	X
Stationery version	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-
Stationery version with hanging files	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-

Mobile drawer units come as lockable version only.

We reserve the right to make amendments to the technical specifications and/or design.

## OVERVIEW | LABORATORY FURNITURE

### TALL CABINETS

Height: 1920 mm | 2 cabinet depths: 350 mm (not all models), 500 mm | All tall cabinets are lockable



Wardrobe cabinet

Pull-out cabinet (pharmacy)

Width (mm)	600	600	600	300	600
Shallow version, depth 350 mm	x	x	-	-	-
No. of optional pull-outs (instead of shelves)	-	4	-	-	-
No. of removable shelves (as standard)	3 or 4	3 or 4	1	-	-
Trays / baskets	-	-	-	4	8



Locker

Display cabinet

Width (mm)	900	1200	900	1200	900	1200	900	1200
Shallow version, depth 350 mm	x	x	x	x	-	-	x	x
No. of optional pull-outs (instead of shelves)	4	4	4	4	-	-	-	-
No. of removable shelves (as standard)	3 or 4	3 or 4	3 or 4	3 or 4	-	-	3	3
Trays / baskets	-	-	-	-	12	16	-	-

### TOP-MOUNTED CABINETS FOR TALL CABINETS

Height: 480 mm without shelf

630, 780 mm, with 1 removable shelf

2 cabinet depths: 350, 500 mm | Top mounted cabinets with doors are lockable



Width (mm)	600	600	900	1200	900	1200
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### CUBICLE CABINETS FOR DOUBLE WORKSTATIONS, ACCESSIBLE FROM EITHER SIDE

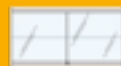
2 heights: 480, 630 mm, depth: 450 mm | Sliding glass doors on either side | 1 removable shelf



Width (mm)	900	1200	1500
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### WALL-MOUNTED CABINETS

3 heights: 480, 630, 780 mm | 1 cabinet depth: 350 mm



Installation cabinet

Cabinet with sliding glass doors

First Aid cabinet

Width (mm)	450	600	450	600	900	1200	900	1200	300	900	1200	1500	1500	450	600
Optional lock	-	-	x	x	-	-	x	x	x	x	x	x	x	-	-
No. of removable shelves (as standard)	1	1	1	1	1	1	1	1	x	1	1	1	1	-	-

### INDIVIDUAL TABLES



Width (mm)	600	900	1200	1500	1800
U-frame table   Depth: 600, 750, 900 mm	-	x	x	x	-
Single table Height-adjustable: 720-960 mm   Depth: 600, 750 mm	x	x	x	x	-
Single table Mobile, height-adjustable: 720-960 mm   Depth: 600, 750 mm	-	x	x	x	-
Heavy-duty mobile table Sitting height, 750 mm   Depth: 600, 750 mm	-	x	x	x	x
Heavy-duty mobile table Standing height, 900 mm   Depth: 600, 750 mm	-	x	x	x	x
Balance bench Sitting or standing height   Depth: 600 mm	-	x	-	-	-







OVERVIEW | CHEMICAL STORAGE CABINETS

SAFETY CABINETS FOR FLAMMABLE LIQUIDS

Type 90 tall cabinets | Height: 1955 mm | Depth: 615 mm | Lockable



Hinged door cabinet



Folding door cabinet

Width (mm)	600	900/1200	1200
No. of removable shelves (as standard)	3	3	3
No. of drip trays (only with shelves)	1	1	1
No. of optional pull-outs (instead of shelves)	4	4	4
Optional automatic close	x	x	-
Optional automatic close and one-handed operation	-	-/x	-

Underbench cabinets  
Height: 710 mm



Width (mm)	592/890	1100	1100	1400	1400
Doors	-	2	-	-	2
Drawers	1	-	2	2	1
Drip tray	-	1	-	-	1

ACIDS AND BASES CABINETS

Acids and bases tall cabinets | Height: 1920 mm |  
Depth: 515 mm | Lockable



Width (mm)	600
No. of pull-out trays	4

Acids and bases underbench cabinets | Height: 720 mm |  
Depth: 515 mm | Lockable



Width (mm)	600	900	1100	1200	1400
No. of pull-out trays (with fan)	-	3	3	3	3
No. of pull-out trays (without fan)	2	4	4	4	4
No. of pull-out trays for containers	1	3	3	3	3

CHEMICALS CABINETS

Chemicals cabinets | Height: 1920 mm |  
Depth: 515 mm | Lockable



Width (mm)	600	900	1200
No. of optional pull-outs (instead of shelves)	4	4	4
No. of removable shelves (as standard)	3 or 4	3 or 4	3 or 4

Underbench chemicals cabinets  
Height: 720 mm | Depth: 515 mm | Lockable



Width (mm)	900/1200
No. of removable shelves (as standard)	1

OVERVIEW | SERVICE SYSTEMS

SERVICE CELLS

Depth: 150 mm | With service columns at width 150 or 300 mm | Optional shelves in 2 depths | Optional table bridge | Optional lighting



Height	1320			1620			1920		
Width (mm)	900	1200	1500	900	1200	1500	900	1200	1500

SERVICE BOOMS



Width (mm)	900	1200	1500
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FITTINGS



Water



Purified water



Cooling water



Industrial gases



Vacuums



High-purity gases

Suitable for service cells	x	x	x	x	x	x
Suitable for service booms	-	-	x	x	x	x
Suitable for fume cupboards	x	x	x	x	x	x

ELECTRICAL



MCBs  
RCDs



Country-specific  
electrical sockets



400 V  
electrical sockets



UPS  
electrical sockets



Data sockets



Switches

Suitable for service cells	x	x	x	x	x	x
Suitable for service booms	x	x	x	x	x	x
Suitable for fume cupboards	x	x	x	x	x	x

OVERVIEW | FUME CUPBOARDS

FUME CUPBOARDS FOR GENERAL USE

Depth: 900 mm



Table top fume cupboard  
with a one-piece sash



Table top fume cupboard  
with telescopic handle



Distillation  
fume cupboard



Walk-in fume  
cupboard



EXPLORIS VarioTop®

1200 mm	x	x	x	x	x
1500 mm	x	x	x	x	x
1800 mm	x	x	x	x	x
2000 mm	x	x	x	x	-
2100 mm	x	x	x	x	-
For ceiling heights from	2.7 m	2.6 m	3 m	3 m	3 m

HIGH-PERFORMANCE FUME CUPBOARDS

Depth: 900 mm



High-performance fume cupboards  
with ceramic lining



High-performance fume cupboards  
with PP lining

1200 mm	x	x
1500 mm	x	x
1800 mm	x	x
	For ceiling heights from 2.7 m	For ceiling heights from 2.7 m

RADIONUCLIDE FUME CUPBOARDS

Depth: 900 mm



Radionuclide fume cupboards

1200 mm	x
1500 mm	x
1800 mm	-
For ceiling heights from	2.7 m

LOCAL EXHAUST VENTILATION (LEV)

Versions for wall and ceiling installation



Pipe	Aluminium, DN 75, white	PP, DN 75, white	PP, DN 100, white	PP anti-static, DN 75, black
Hood	Round hood, PETG, transparent	Round hood, steel, white	Round hood, PP, white	Round hood, aluminium chromate conversion coating
Installation	Wall or ceiling-mounted	Wall or ceiling-mounted	Wall or ceiling-mounted	Wall or ceiling-mounted



# OVERVIEW

- > Service systems
- > Chemical storage cabinets
- > Fume cupboards





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