

# Köttermann Fume Cupboards.

Individually configurable.



We exceed  
standards  
for you.

Individually configurable  
efficiency.



## Contents

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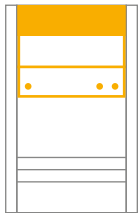
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# Fume cupboard types

## Flexible and individually configurable

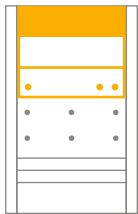
When dealing with volatile hazardous substances, dusts or aerosols, the protection of employees is our top priority. Such works must therefore be carried out in a fume cupboard.

KÖTTERMANN fume cupboards not only achieve top results in all relevant tests, but also offer users ergonomic advantages that make work processes easier and thus even safer.

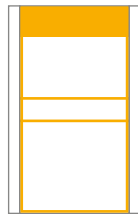


**Bench-type fume cupboards**  
All-rounders for general use

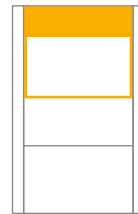
- **Complete range**  
the right fume cupboard for every application
- **Made from steel**  
high quality and long lasting
- **Perfect safety**  
certified by independent institutes
- **Ergonomic functions**  
to improve workflows
- **Exemplary sustainability**  
low operating costs, recyclable material
- **Quality "Made in Germany"**  
best price-performance ratio



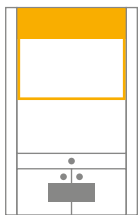
**Energy-efficient fume cupboards**  
EXPLORIS EcoPlus®  
The low-energy fume cupboard



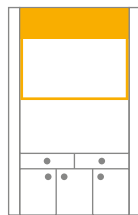
**Walk-in and distillation fume cupboards**  
High experimental setups



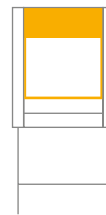
**Height-adjustable fume cupboards**  
EXPLORIS VarioTop®  
Ergonomics in the workplace due to flexible working heights



**High-performance fume cupboards**  
Optimal protection when working with acids and high thermal loads



**Radionuclide fume cupboards**  
For dealing with radioactive isotopes



**Pharmacy hood**  
Space-saving and flexible

## Benefits

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- Certification of all EXPLORIS® standard fume cupboards according to DIN EN 14175
- Optimized exhaust air system in terms of flow technology
- Excellent containment capacity for pollutants
- Sash made of laminated safety glass
- Especially low operating costs
- Lots of space for devices due to particularly large interior depth
- Easy operation and safe monitoring through integrated EXPLORIS TouchTronic®\*
- Support of various applications through individual gas, water and electrical services
- Tested for 20 years of operation
- Electric cables free from halogenated hydrocarbons
- Cable entry through the inlet profile at the worktop

## Possibilities for substructures

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- Safety underbench cabinets for flammable liquids
- Chemical storage underbench cabinets
- Acid and base underbench cabinets
- Standard pedestal underbench cabinets
- Mobile underbench cabinets
- Knee-space panel
- Waste collection system
- Neutralisation system
- EXPLORIS LevelControl®

## Equipment options

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- EXPLORIS TouchTronic®
  - fume cupboard electronics with touch screen for controlling and monitoring all functions
- EXPLORIS AutoProtect®
  - closes the sash automatically as soon as the fume cupboard area is left
- EXPLORIS AirMonitor®
  - monitoring function with digital display, option of volume flow or face velocity
- EXPLORIS AirControl®
  - for variable control of the exhaust air volume flow
- EXPLORIS CloseGuard®
  - stops the automatic closing of the sash in the event of obstacles
- EXPLORIS LevelControl®
  - waste collection system with electronic fill level monitoring
  - for solvent and aqueous wastes
  - can be integrated in safety underbench cabinets
  - can be integrated in acid and base cabinets
  - filling of containers directly from the fume cupboard interior
  - electrically conductive polypropylene
- Temperature sensor in high-performance fume cupboards
  - for monitoring the interior temperature and alarming when a limit value is exceeded
- Foot switch for operating the sash
  - practical when no hand is free
- Worktops in different materials
  - optionally height-adjustable (EXPLORIS VarioTop®)
- LED-Interior lighting
  - bright and uniform illumination of the workspace
- Programmable sockets in the fume cupboard interior
  - individually switchable
  - start-stop-timer and countdown
- Integrated fuses / RCCBs
- Fittings for water and gases in different purity
  - easy and safe to reach outlets
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Drawers in the fume cupboard frame
- Baffle
- Exhaust air scrubber

\*More information on page 31

# Which fume cupboard for which requirement?

## KÖTTERMANN fume cupboards for every application

Fume cupboards can be used universally in the laboratory. They ensure optimum protection against hazardous substances. The selection of the appropriate fume cupboard type depends both on the room conditions of the laboratory and on the type of chemicals used. Especially when using acids, the following recommendations should be followed.

### Fume cupboards for general use

(Bench-type, distillation, walk-in fume cupboard, EXPLORIS VarioTop®, EXPLORIS EcoPlus®)

	suitable	occasional use	not suitable
Organic solvents	X		
Weak acids	X		
Diluted 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 Trespa® TopLab® VERTICAL lining

	suitable	occasional use	not suitable
Organic solvents	X		
Weak acids	X		
Diluted 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 cupboards**

with PP lining (polypropylene) / fume cupboard for hydrofluoric acid

	suitable	suitable but not recommended	not suitable
Organic solvents		X	
Weak acids		X	
Diluted 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 cupboards**

with ceramic lining

	suitable	not suitable
Organic solvents	X	
Weak acids	X	
Diluted 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 cupboards**

	suitable	not suitable
Organic solvents	X	
Weak acids	X	
Diluted mineral acids	X	
Cold concentrated mineral acids		X
Hot concentrated mineral acids		X
Hydrofluoric acid		X
Radioactive substances	X	
High thermal load		X

# Bench-type fume cupboards

All-rounders for general use



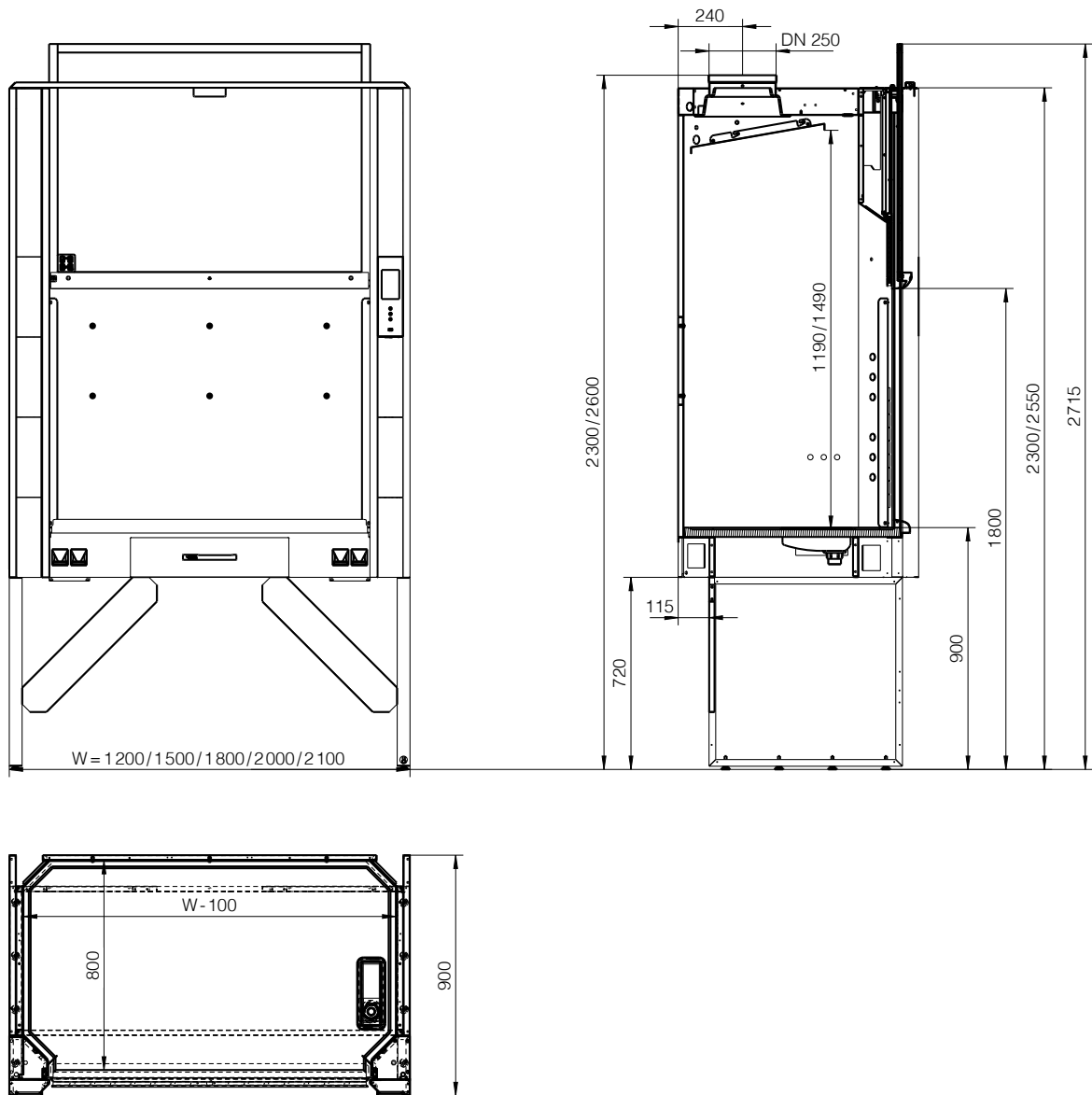
A particularly energy-saving  
variant of the fume cupboard  
for general use is the

**EXPLORIS EcoPlus®**

More information  
on page 9



## Dimensions EXPLORIS® Bench-type fume cupboard high / low design



## EXPLORIS® Bench-type fume cupboards

Dimensions in mm | Volume flow in m<sup>3</sup>/h

Width	1200	1500	1800	2000	2100
Front height	2300/2550	2300/2550	2300/2550	2300/2550	2300/2550
Housing height	2300/2600	2300/2600	2300/2600	2300/2600	2300/2600
Depth	900	900	900	900	900
Usable space width	1100	1400	1700	1900	2000
Usable space height	1190/1490	1190/1490	1190/1490	1190/1490	1190/1490
Usable space depth	800	800	800	800	800
Working height	900	900	900	900	900
Minimum permissible volume flow **	450	530	680	800	800
Volume flow to be adjusted	480	600	720	840	840
Maximum permissible volume flow	1500	1500	1500	1500	1500

\*\* Alarm value

## Description

**EXPLORIS® bench-type fume cupboards for general use** can be used universally in the laboratory. They are ideal for dealing with organic solvents and are also suitable for working with cold or diluted acids. Depending on the room height of the laboratory, there is a choice between a high and a low design.

## Properties and benefits

- Certified according to DIN EN 14175 Part 2 and Part 3
- With innovative EXPLORIS TouchTronic®\* as standard
- Low operating costs due to low airflow
- Extra large interior depth due to special worktop shape

## EXPLORIS TouchTronic®



## Equipment Options

- Sash options
  - one-piece sash (fume cupboards with standard front height)
  - telescopic sash (fume cupboards with reduced front height)
  - two-piece laminated safety glass (with and without sliding glass panels)
- Foot switch for operating the sash
- Interior: coated steel, optional lining in Trespa® TopLab® VERTICAL
- Drawer with full pull-out, cushioned automatic closure and label
- Worktops in different materials
- LED interior lighting
- Programmable sockets in the fume cupboard chamber
- Individual gas, water and electrical fittings with quality products from BROEN - LAB A/S, Spectron Gas Control Systems GmbH and GCE GmbH
- Integrated fuses / RCCBs
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Cable entry through the inlet profile on the worktop
- Cable bushing in the fume cupboard side
- Window in the fume cupboard side
- Also available as fume cupboard for low ceiling height with reduced front height (2300mm) and floor-mounted service columns

# Energy-efficient fume cupboards

EXPLORIS EcoPlus®

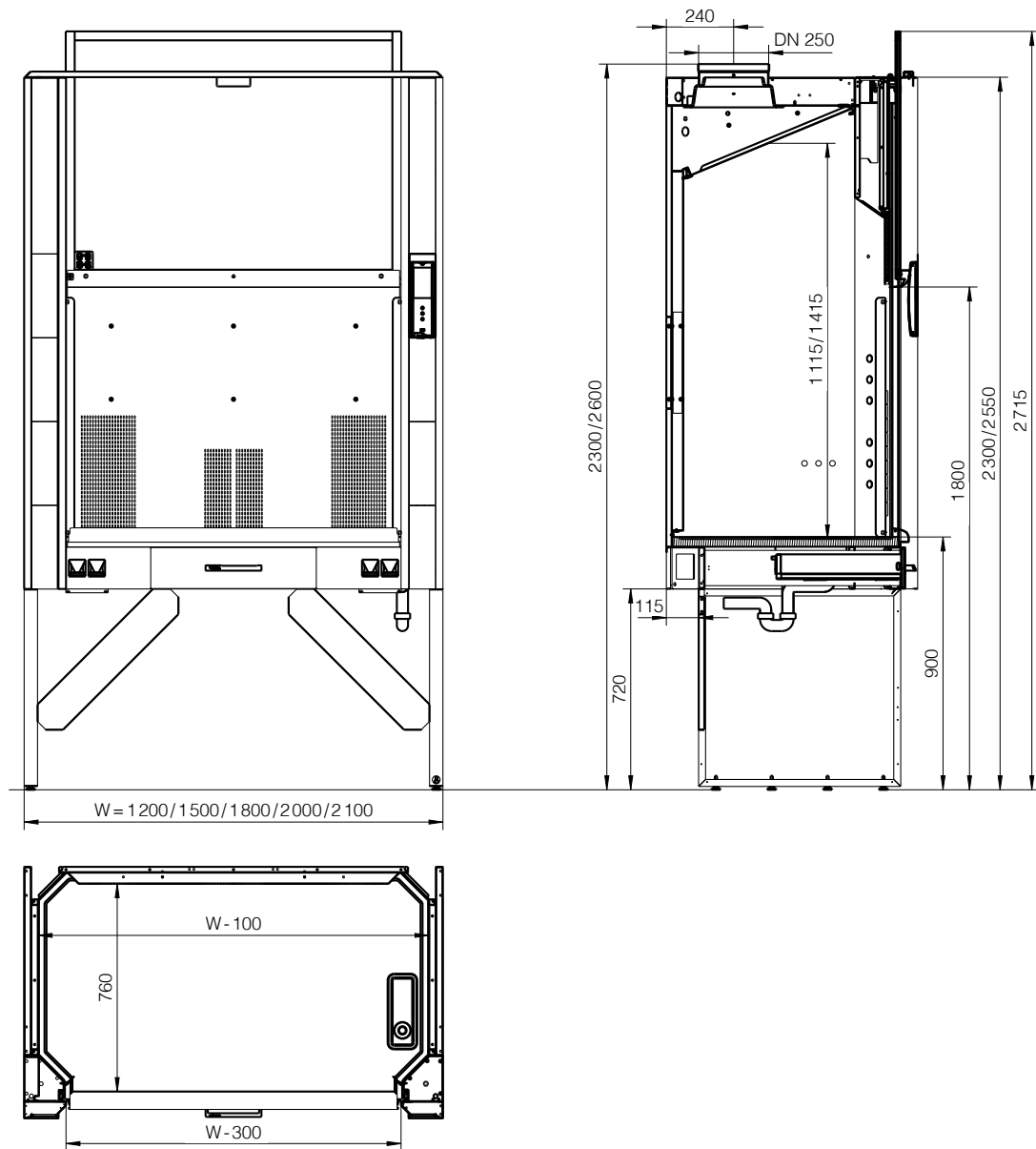


Convincing figures

	Fume cupboard conventional		EXPLORIS EcoPlus®		Saving EXPLORIS EcoPlus®
Operating time per f.c. (width 1500mm)	m <sup>3</sup>	€	m <sup>3</sup>	€	€
1 hour	600	0.48	375	0.30	0.18
1 day (a 8 hours)	4800	3.84	3000	2.40	1.44
1 year (250 days a 8 hours)	1 200 000	960	750 000	600	360
1 year (250 days a 24 hours)	3 600 000	2880	2 250 000	1800	1080

Assumption: 1 000 m<sup>3</sup> of processed laboratory air cost 0.80 Euro.

## Dimensions EXPLORIS EcoPlus®



## EXPLORIS EcoPlus®

Dimensions in mm | Volume flow in m³/h

Width	1200	1500	1800	2000	2100
Front height	2300/2550	2300/2550	2300/2550	2300/2550	2300/2550
Housing height	2300/2600	2300/2600	2300/2600	2300/2600	2300/2600
Depth	900	900	900	900	900
Usable space width	1100	1400	1700	1900	2000
Usable space height	1115/1415	1115/1415	1115/1415	1115/1415	1115/1415
Usable space depth	760	760	760	760	760
Working height	900	900	900	900	900
Minimum permissible volume flow **	300	375	450	530	530
Volume flow to be adjusted	360	450	540	630	630
Maximum permissible volume flow	1500	1500	1500	1500	1500

\*\* Alarm value

## Description

**EXPLORIS EcoPlus®** reduces the consumption of expensive conditioned air in the laboratory by up to 30 percent compared to conventional fume cupboards. This saves energy, protects the environment and reduces the operating costs per fume cupboard by up to € 1,000 per year. The ventilation system offers further savings potential: Smaller pipe cross-sections and smaller dimensioned fans can save up to 20 percent on investment costs.

Bench-type fume cupboards are available as EXPLORIS EcoPlus® and can be retrofitted.

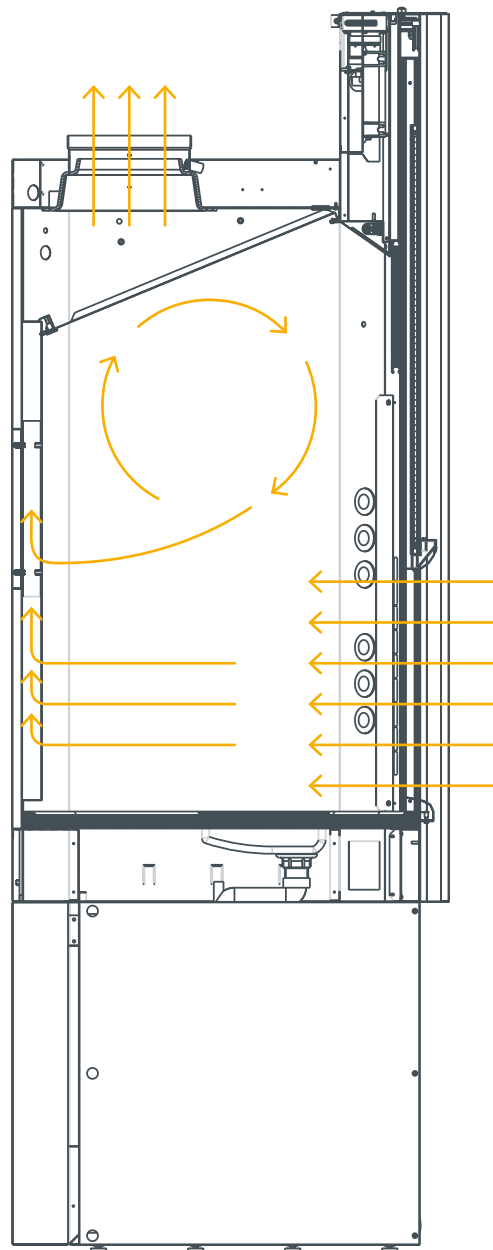
## Properties and benefits

- Certified according to DIN EN 14175 Part 2 and Part 3
- With innovative EXPLORIS TouchTronic®\* as standard
- Tested safety at 250 m³/h per running metre
  - no cost-intensive supportive flow technology
  - meets the requirements in the demanding robustness test without consuming supply air
- Even more cost-effective due to low air consumption
  - reduces the operating costs of the fume cupboard by up to 30 percent depending on the room conditions
  - reduces the investment costs of the exhaust air system
- Exemplary sustainability
  - environmental protection through low energy consumption
  - longevity and environmentally sound disposal through the material Steel

## Equipment Options

- As per fume cupboards for general use (see page 8)
- Also available as fume cupboard for low ceiling height with reduced front height (2300 mm) and floor-mounted service columns.

## Airflow profile

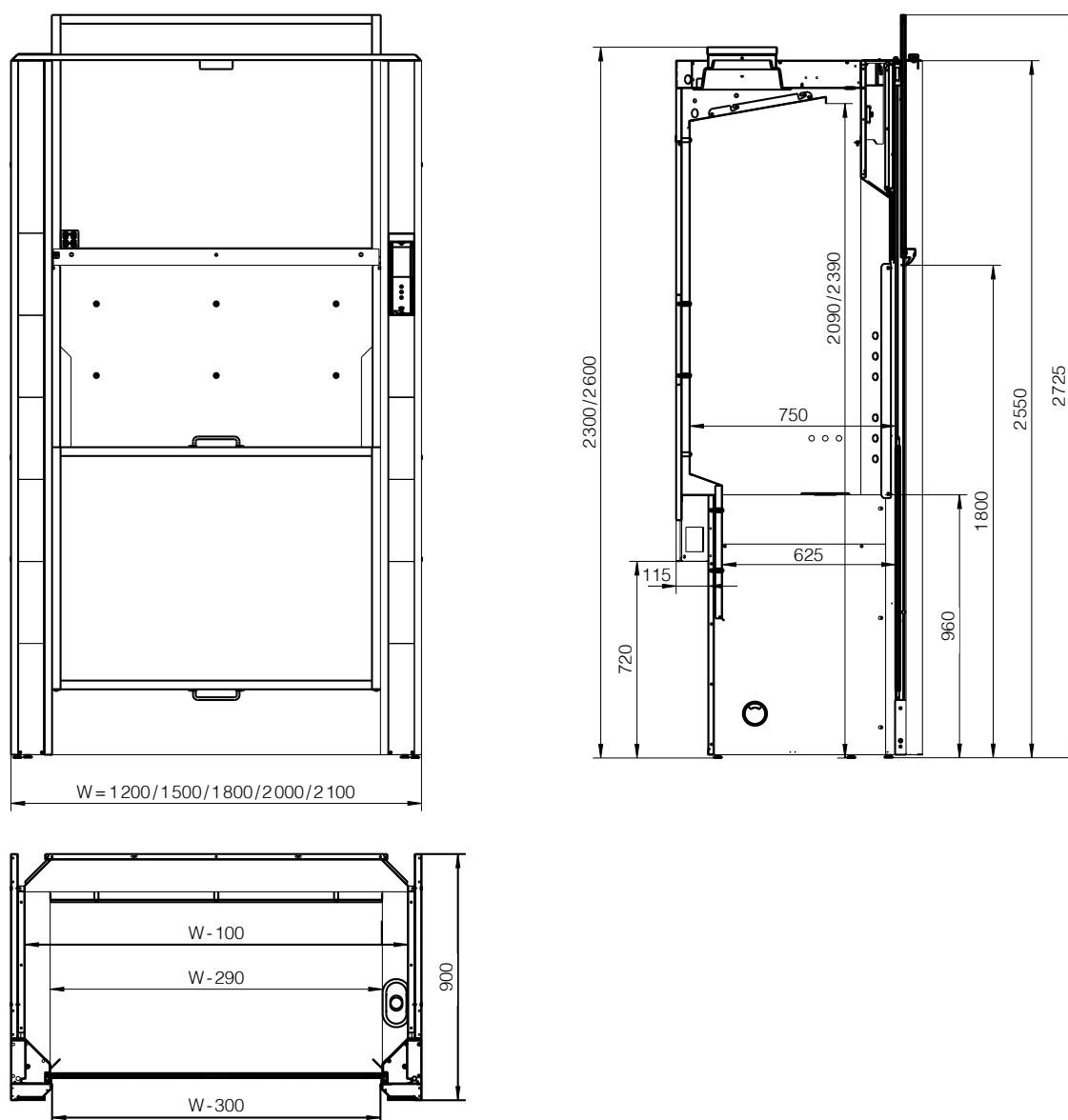


# Walk-in and distillation fume cupboards

High experimental setups securely contained



## Dimensions EXPLORIS® walk-in fume cupboard



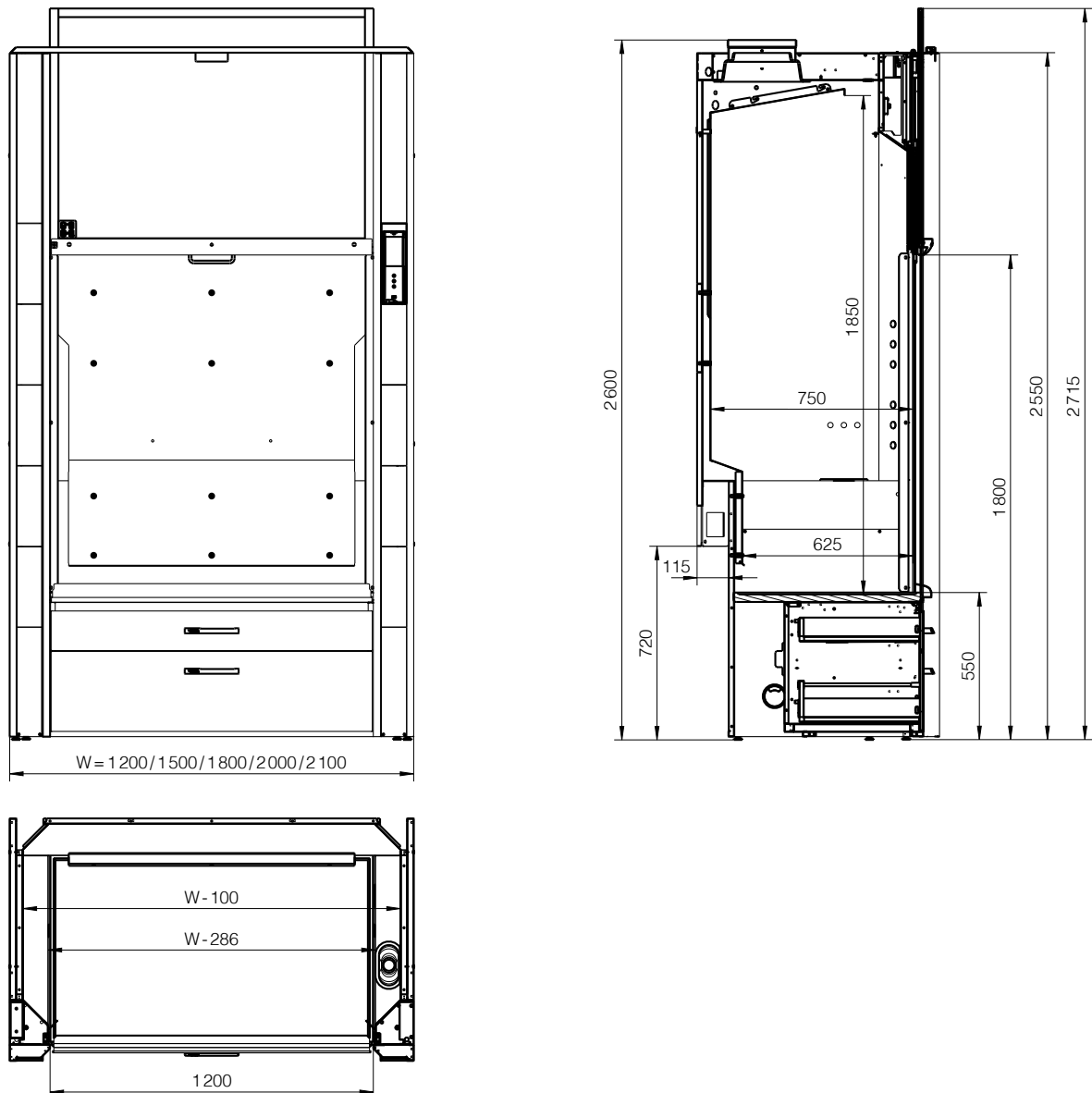
## EXPLORIS® walk-in fume cupboards

Dimensions in mm | Volume flow in m³/h

Width	1200	1500	1800	2000	2100
Front height	2550	2550	2550	2550	2550
Housing height	2300/2600	2300/2600	2300/2600	2300/2600	2300/2600
Depth	900	900	900	900	900
Usable space width	910/1100	1210/1400	1510/1700	1710/1900	1810/2000
Usable space height	2090/2390	2090/2390	2090/2390	2090/2390	2090/2390
Usable space depth	625/750	625/750	625/750	625/750	625/750
Minimum permissible volume flow **	660	830	990	1160	1160
Volume flow to be adjusted	750	940	1120	1310	1310
Maximum permissible volume flow	2000	2000	2000	2000	2000

\*\* Alarm value

## Dimensions EXPLORIS® distillation fume cupboard



## EXPLORIS® distillation fume cupboards

Dimensions in mm | Volume flow in m<sup>3</sup>/h

Width	1200	1500	1800	2000	2100
Front height	2550	2550	2550	2550	2550
Housing height	2600	2600	2600	2600	2600
Depth	900	900	900	900	900
Usable space width	910/1100	1210/1400	1510/1700	1710/1900	1810/2000
Usable space height	1850	1850	1850	1850	1850
Usable space depth	625/750	625/750	625/750	625/750	625/750
Working height	550	550	550	550	550
Minimum permissible volume flow **	600	750	900	1050	1050
Volume flow to be adjusted	630	790	950	1110	1110
Maximum permissible volume flow	1500	1500	1500	1500	1500

\*\* Alarm value



## Description

**EXPLORIS® Walk-in and distillation fume cupboards** are used when a large working height is required, for example in distillations or preparative column chromatography.

Distillation fume cupboards are equipped with a low worktop. In addition, walk-in fume cupboards have the advantage that big and heavy equipment can be moved on a mobile table directly into the chamber of the fume cupboard.

## Properties and benefits

- Certified according to DIN EN 14175 Part 2 and Part 3
- With innovative EXPLORIS TouchTronic®\* as standard
- Extremely high interior space for particularly large experimental setups

## Equipment options

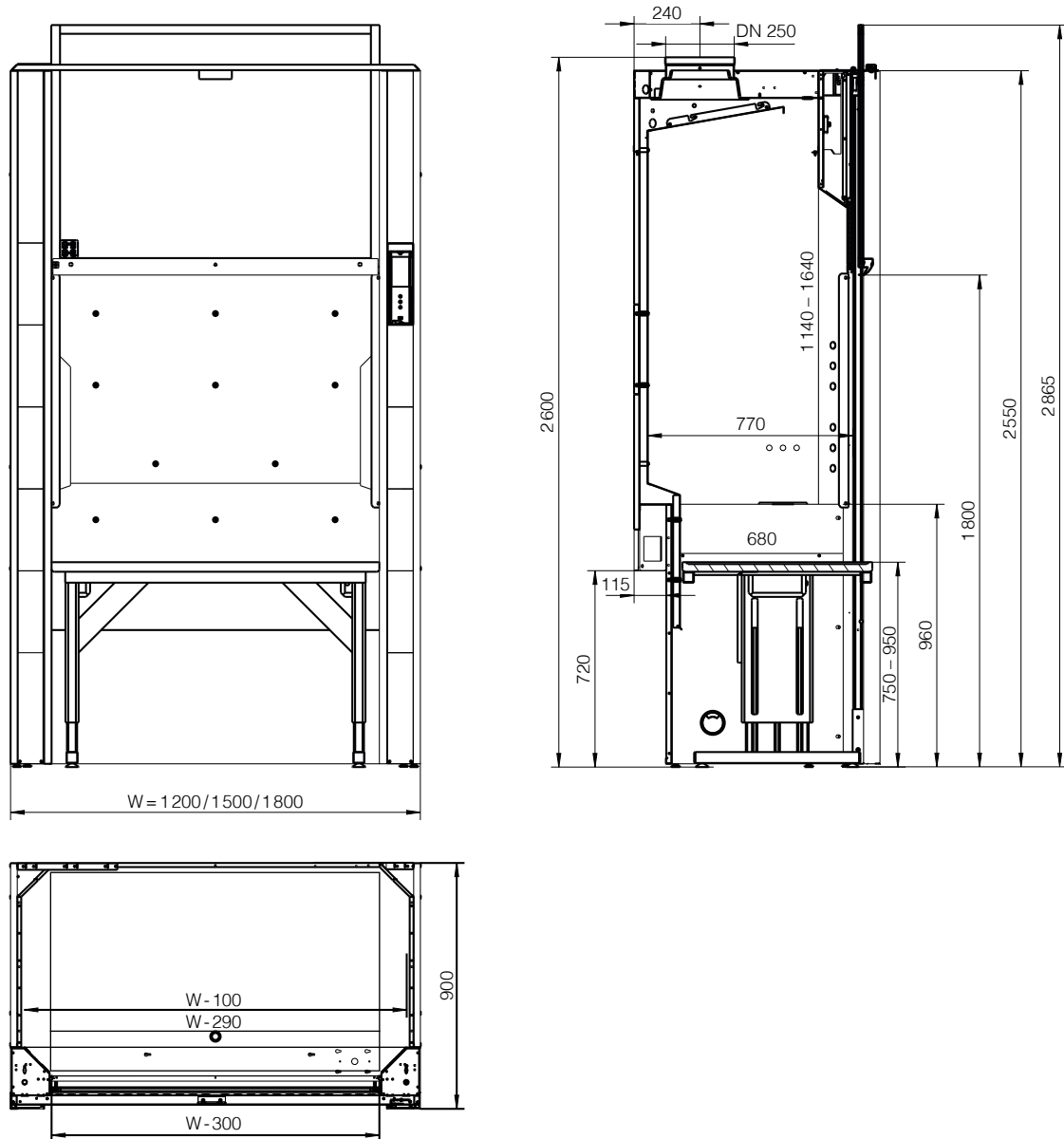
- Two-piece sash
  - two-piece laminated safety glass
  - glazed throughout or with sliding glass panels
- Foot switch for operating the sash
- Worktops in different materials
- LED interior lighting
- Programmable sockets in the fume cupboard chamber
- Individual gas, water and electrical fittings with quality products from BROEN-LAB A/S, Spectron Gas Control Systems GmbH and GCE GmbH
- Integrated fuses / RCCBs
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Cable entry through the inlet profile on the worktop (distillation fume cupboard)
- Cable bushing in the fume cupboard side
- Underbench cabinets with drawers or doors (distillation fume cupboard)

# Height-adjustable fume cupboards

EXPLORIS VarioTop®



## Dimensions EXPLORIS VarioTop®



## EXPLORIS VarioTop®

Dimensions in mm | Volume flow in m<sup>3</sup>/h

Width	1200	1500	1800
Front height	2550	2550	2550
Housing height	2600	2600	2600
Depth	900	900	900
Usable space width**	910/1100	1210/1400	1510/1700
Usable space height	1440 – 1640	1440 – 1640	1440 – 1640
Usable space depth**	680/770	680/770	680/770
Working height	750 – 950	750 – 950	750 – 950
Minimum permissible volume flow***	540	600	720
Volume flow to be adjusted	600	750	900
Maximum permissible volume flow	1500	1500	1500

\*\*to/from 960mm interior height

\*\*\* Alarm value

## Description

**EXPLORIS VarioTop®** fume cupboards are extremely flexible. The worktop can be electrically adjusted to a height of 750 to 950mm in order to meet the requirements of experimental setups – simply and conveniently via the innovative control electronics EXPLORIS TouchTronic®\*.

The intelligent EXPLORIS AutoProtect® sash control system ensures that the sash closes automatically up to the actual height of the worktop.

## Properties and benefits

- Certified according to DIN EN 14175 Part 2 and Part 3
- With innovative EXPLORIS TouchTronic®\* as standard
- Ergonomic working in sitting and standing heights
- Table height individually adjustable for user or experimental conditions
- Three definable positions for frequently required table heights

## Equipment options

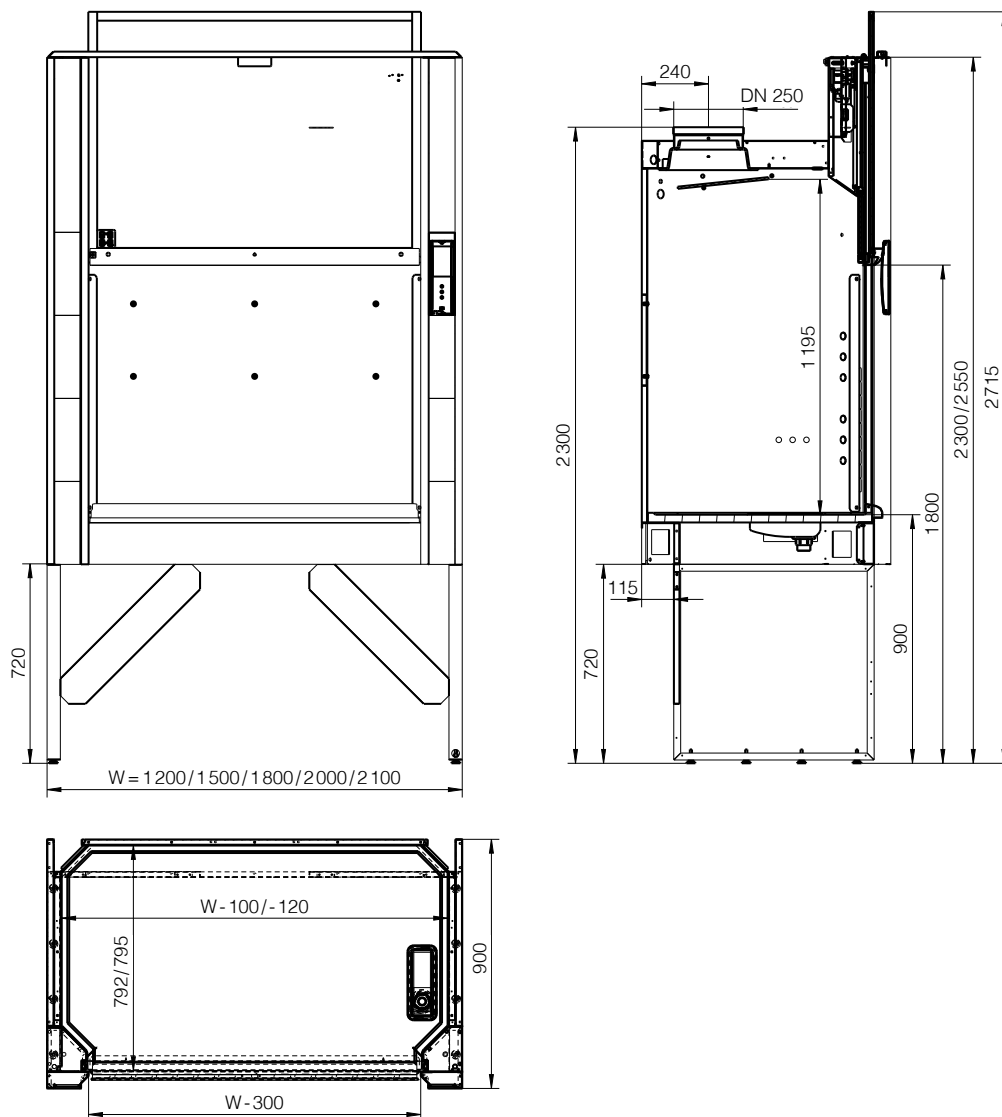
- One-piece sash
  - made of two-piece laminated safety glass (with and without sliding glass panels)
- Foot switch for operating the sash
- Fume cupboard interior: coated steel
- Worktops in different materials, height-adjustable from 750 to 950mm
- LED interior lighting
- Programmable sockets in the fume cupboard chamber
- Individual gas, water and electrical fittings with quality products from BROEN-LAB A/S, Spectron Gas Control Systems GmbH and GCE GmbH
- Integrated fuses / RCCBs
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Cable entry through the inlet profile on the worktop
- Cable bushing in the fume cupboard side
- Window in the fume cupboard side

# High-performance fume cupboards

Optimal protection when working with acids and high thermal loads



## Dimensions EXPLORIS® High-performance fume cupboard



## EXPLORIS® High-performance fume cupboards

Dimensions in mm | Volume flow in m<sup>3</sup>/h

Width	1200	1500	1800	2000	2100
Front height	2300/2550	2300/2550	2300/2550	2300/2550	2300/2550
Housing height	2300	2300	2300	2300	2300
Depth	900	900	900	900	900
Usable space width PP lining	1090	1390	1690	1890	1990
Usable space width Ceramic lining	1080	1380	1680	1880	1980
Usable space height	1195	1195	1195	1195	1195
Usable space depth PP lining	795	795	795	795	795
Usable space depth Ceramic lining	792	792	792	792	792
Working height	900	900	900	900	900
Minimum permissible volume flow **	660	830	990	1790	1790
Volume flow to be adjusted	720	900	1080	1900	1900
Maximum permissible volume flow	1500	1500	1500	2000	2000

\*\* Alarm value

## Description

**High-performance fume cupboards** are specially designed for high chemical loads, which occur, for example, when fuming strong mineral acids such as sulphuric, nitric and hydrochloric acid or aqua regia.

Lined with resistant ceramic or polypropylene, EXPLORIS® high-performance fume cupboards protect against all acid attacks. Due to its design, the special airflow also allows working with high thermal loads.

## Properties and benefits

- Certified according to DIN EN 14175 Part 2, Part 3 and Part 7
- With innovative EXPLORIS TouchTronic®\* as standard
- Enormous resistance due to large-area linings
- Special air technology for working with high heat development
- Extra large interior depth
- Temperature sensor with alarm function

## Equipment Options

- Sash options
  - one-piece sash (fume cupboards with standard front height)
  - telescopic sash (fume cupboards with reduced front height)
  - two-piece laminated safety glass
  - made of polycarbonate – especially for applications with hydrofluoric acid
- Foot switch for operating the sash
- Interior: lining made of
  - acid-resistant ceramic
  - polypropylene: especially for working with hydrofluoric acid
- Worktops made of polypropylene or ceramic
- LED interior lighting
- Individual gas, water and electrical fittings with quality products from BROEN-LAB A/S, Spectron Gas Control Systems GmbH and GCE GmbH
- Integrated fuses / RCCBs
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Drawer in the fume cupboard frame
- Cable entry through the inlet profile on the worktop
- Exhaust air scrubber for exhaust air cleaning
- Also available as fume cupboard for low ceiling height with reduced front height (2300mm) and floor-mounted service columns

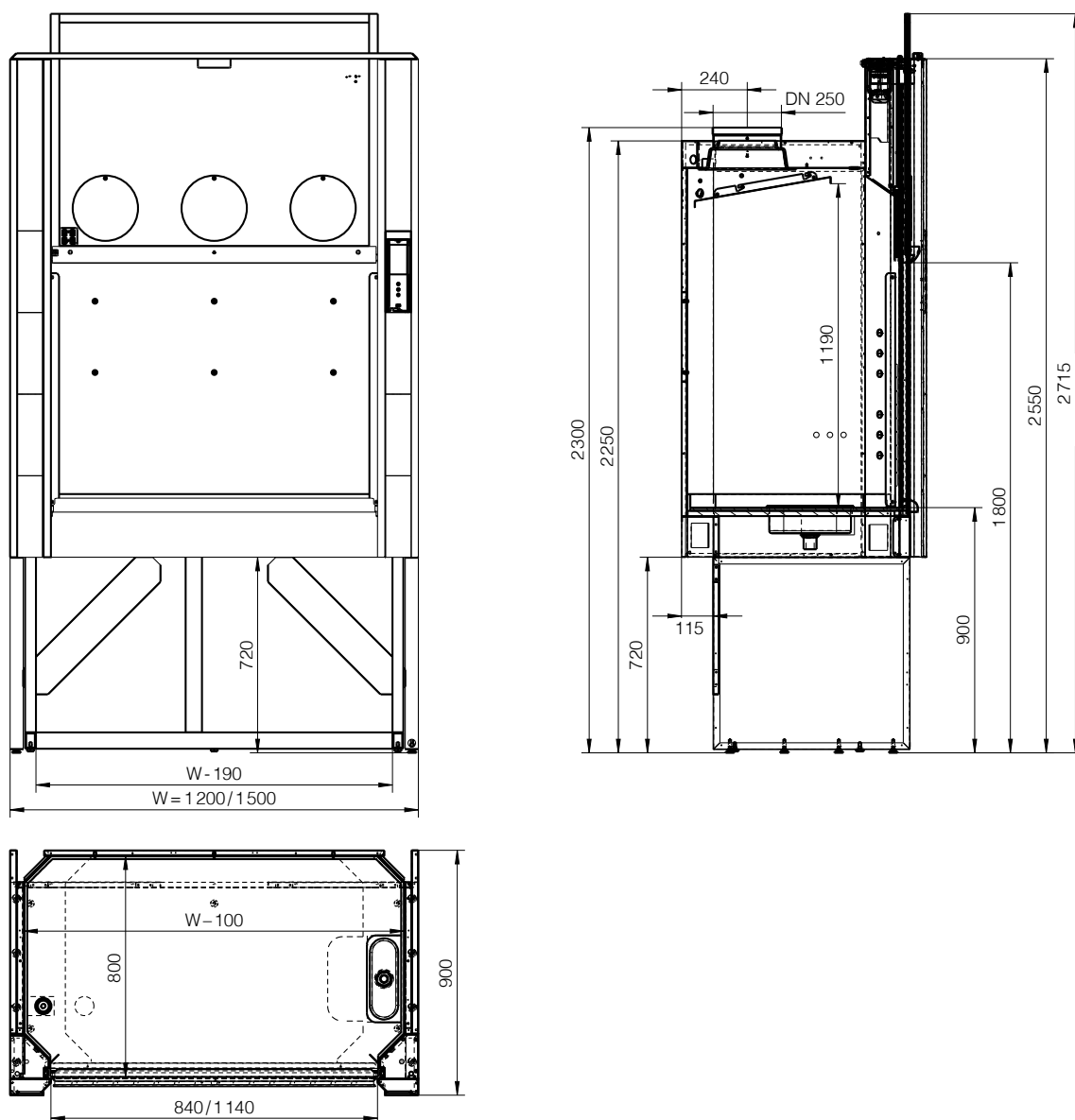
# Radionuclide fume cupboards

For dealing with radioactive isotopes





## Dimensions EXPLORIS® radionuclide fume cupboards



## EXPLORIS® Radionuclide fume cupboards

Dimensions in mm | Volume flow in  $m^3/h$

Width	1200	1500
Front height	2550	2550
Housing height	2300	2300
Depth	900	900
Usable space width	1100	1400
Usable space height	1190	1190
Usable space depth	800	800
Working height	900	900
Minimum permissible volume flow **	450	720
Volume flow to be adjusted	500	800
Maximum permissible volume flow	1500	1500

\*\* Alarm value

## Description

**EXPLORIS® radionuclide fume cupboards** are specialists in dealing with radioactive substances. With radiation protection, easy decontamination and containment safety, they ensure that laboratory workers are on the safe side, even when working on delicate tasks.

The worktop made of stainless steel is easy to clean and has a particularly high upstand, which securely retains spilled liquids. For even greater demands on laboratory safety, the radionuclide fume cupboard can be equipped with a completely welded stainless steel interior.

## Properties and benefits

- Certified according to DIN EN 14175 Part 2 and Part 3
- Design according to DIN 25466
- With innovative EXPLORIS TouchTronic®\* as standard
- Low operating costs due to low airflow
- Extra large interior depth
- Worktop made of stainless steel:  
A load capacity of more than 1.5 t allows the installation of lead containers

## Equipment Options

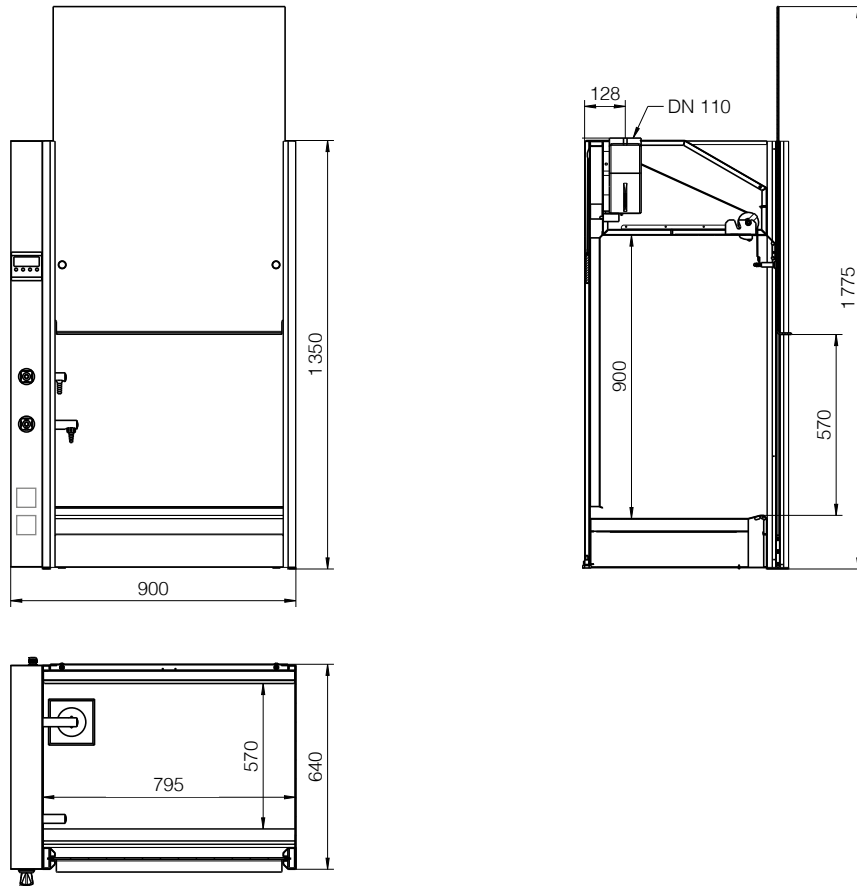
- Foot switch for operating the sash
- Worktop made of stainless steel, optionally lined with lead for shielding of the knee-space
- LED interior lighting
- Programmable sockets in the fume cupboard interior
- Individual gas, water and electrical fittings with quality products from BROEN-LAB A/S, Spectron Gas Control Systems GmbH and GCE GmbH
- Integrated fuses / RCCBs
- Scaffolding parts for the installation on the rear panel of the fume cupboard
- Cable entry through the inlet profile on the worktop
- Cable bushing in the fume cupboard side
- Exhaust air filter available for exhaust air cleaning
- Shielding against radiation through lead plate in the worktop

# Pharmacy hood

Space-saving and flexible



## Dimensions EXPLORIS® Pharmacy fume cupboard



## EXPLORIS® EXPLORIS® Pharmacy fume cupboard

Dimensions in mm | Volume flow in m³/h

Width	900	900
Front height	1350	1350
Depth	640	640
Usable space width	795	795
Usable space height	900	900
Usable space depth	570	570
Fan	X	–
Services	X	X
Minimum required volume flow	250	250

## General

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**Pharmacy fume cupboards** are small fume cupboards that were especially developed for the handling of hazardous substances in pharmacies. Of course, they comply with the requirements of § 4 (2) of the German Pharmacy Regulations and are ideally suited for working with dusty preparations or volatile chemicals – not only in pharmacies.

Pharmacy fume cupboards are always used when less toxic substances need to be extracted.

- Protection against harmful vapours
- Filling of volatile solvents
- Enclosing of small experiments
- Neutralisation of odours

## Properties and benefits

- Tested according to DIN 12924 Part 4
- Sash: one-piece sash made of polyacrylic
- Well suited for small laboratories and rooms with low ceiling height
- Optimal placement on a table
- Integrated airflow monitoring
- For the connection to an exhaust air system available on site

## Equipment

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- Monitoring electronics
- Two sockets
- Interior lighting
- Infinitely adjustable acrylic glass sash
- Optionally with integrated fan
- Completely equipped with gas, water and power supply

## Further exhaust air accessories

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- Extraction arms
- Extract canopies
- Bench-type fume cupboard hood without services

# Substructure options

Store and dispose directly in the fume cupboard

## General

When working at the fume cupboard, you can save a lot of time when the materials needed are directly at your hand. For this purpose and additionally to the product range, KÖTTERMANN offers useful accessories and different substructure options for fume cupboards.

## Different options for underbench cabinets

for general storage and storage of hazardous substances



- Standard pedestal underbench cabinet
  - for general storage
- Cabinets without pedestal
  - mobile with equipment on castors (for example neutralisation plant)
- Acid and base underbench cabinets
  - for the storage of acids and bases directly at the workplace or for the collection of aqueous acid wastes
- Underbench safety cabinets according to EN 14470-1
  - for the storage of flammable solvents directly at the workplace or for the collection of solvent-containing wastes
- Knee-space panel under the worktop
- Waste collection system EXPLORIS LevelControl® in two variants:
  - for aqueous solutions or basic waste
  - explosion-proof for organic solvents

## The XXL underbench safety cabinets

Special feature



- Two storage levels on top of each other double the storage capacity of 1-liter bottles\* compared to conventional cabinets.

\* Commercially available 1-liter bottles with a maximum height of 225 mm

# Accessories

## General

In addition to equipment with gases, water and electrical installations, fume cupboards can also be equipped with scaffolding systems as accessories. Gauntlet gloves made of latex are also part of the range of accessories for fume cupboards.

## Electrical equipment



- Sockets available in all country variants and current intensities:
  - maximum number in the interior 8 x 230 V, 2 x 400 V
- Optional residual current and circuit breaker (circuit breakers can be assigned to individual circuits, for example for the separate protection of high-performance consumers)
- Cabling free of halogenated plastics

## Water and gases



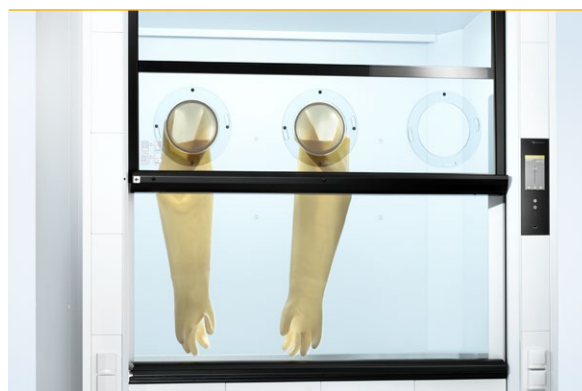
- Up to 6 water fittings can be installed as standard
- Up to 12 valves for technical gases can be used
- Up to 10 high-purity gas fittings can be installed as standard

## Scaffolding systems



- Scaffold rod set for function profile
- Scaffold tube, w 900mm, 12mm, for 1200mm wide fume cupboard, with 2 scaffold rod connectors
- Scaffold tube, w 1200mm, 12mm, for 1500mm wide fume cupboard, with 2 scaffold rod connectors
- Scaffold tube, w 1500mm, 12mm, for 1800mm wide fume cupboard, with 2 scaffold rod connectors
- Scaffold tube, w 1800mm, 12mm, for 2100mm wide fume cupboard, with 2 scaffold rod connectors
- Scaffold system for laboratory fume cupboard, 2 function profiles, 4 scaffold rods, 4 scaffold holders

## Latex gloves



- Suitable for the radionuclide fume cupboard

### Drawer dividers



- Connection system-set – divider for cabinet w 600mm, 1 crosswise divider, 3 longitudinal dividers, frame, type Vario Aluminium
- Drawer divider for cabinet w 600mm, 10 stainless steel boxes, 1 terminal block, type Inox

### Cleaning set

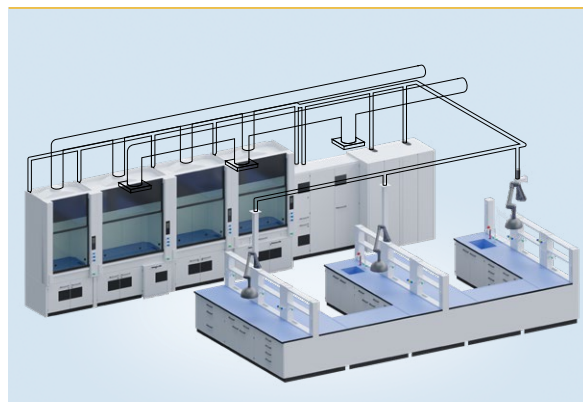


- For work surfaces and furniture fronts
- Cleanliness and hygiene are basic requirements for safe and precise working in the laboratory. They ensure a high quality standard of the work to be done and thus contribute to the improvement of the work results.
- All products have been specially tested for the KÖTTERMANN laboratory and adapted to the surfaces and materials used.

### Exhaust air cleaning

- Exhaust air scrubber  
– to remove water-soluble pollutants
- Active carbon filter  
– for removal of organic / chemical loads
- Particle filter  
– to remove particles from the exhaust air
- Extraction arms
- Extract canopies
- If required, an external neutralisation system can be integrated below or next to the fume cupboard.

### Exhaust air systems



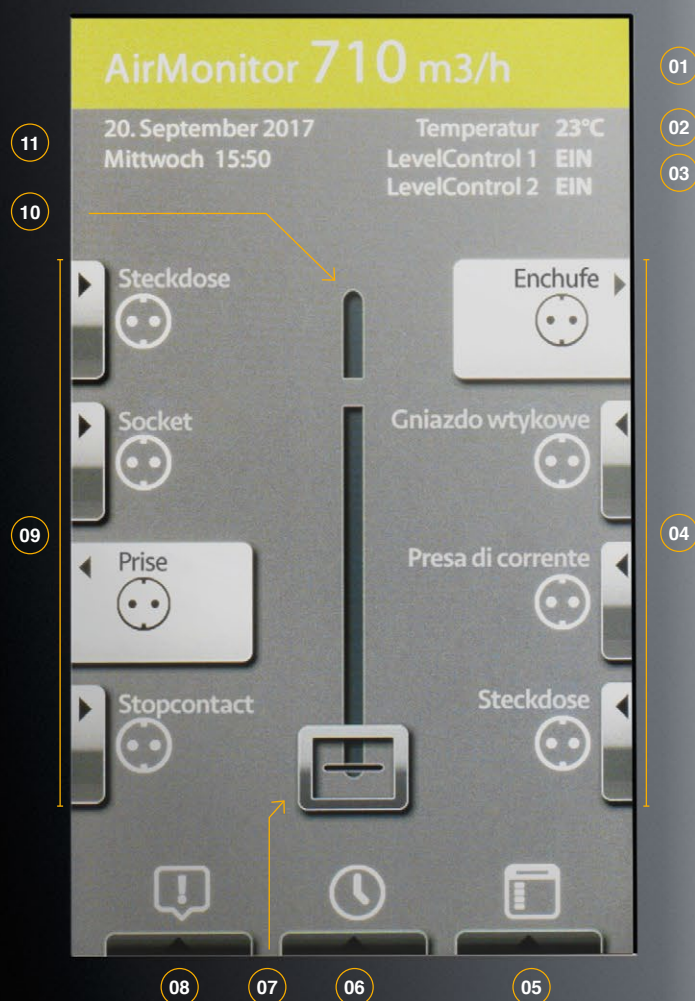
- Individual complete solution for laboratory ventilation through the connection to an external fan or a central exhaust air system.

### Hints

- Explosion-proof versions of fume cupboards are available on request
- KÖTTERMANN operating instructions for download under [www.koettermann.com/manual](http://www.koettermann.com/manual)
- Overviews of spare parts for all products are available on request



# EXPLORIS TouchTronic®



## Overview of functions

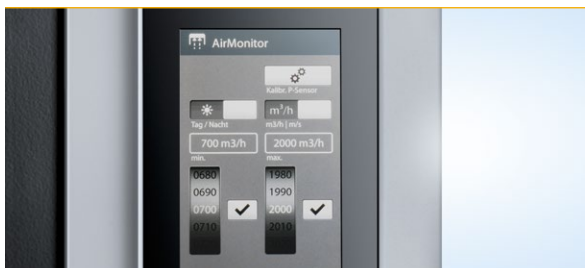
- 01 EXPLORIS AirMonitor®: coloured field for displaying the exhaust air flow rate (optional: representation of the face velocity)
- 02 Temperature monitoring
- 03 EXPLORIS LevelControl®
- 04 Control for sockets in the fume cupboard interior, right
- 05 Menu Settings
- 06 Menu Timer
- 07 Slider for sash
- 08 Menu Info (amongst other alarm messages)
- 09 Control for sockets in the fume cupboard interior, left
- 10 Maximum opening of sash
- 11 Date and time

## Description

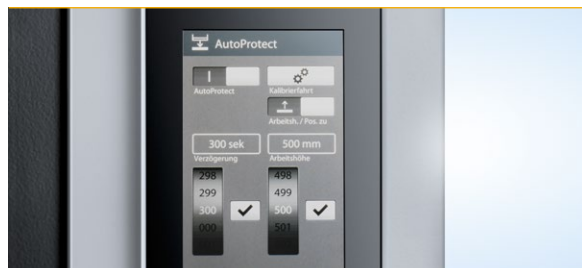
Our innovative EXPLORIS TouchTronic® fume cupboard electronics make it easy to control numerous functions. It is the universal monitoring and control unit for all EXPLORIS® fume cupboards.

The touch screen integrated in the right column allows a wide range of functions to be controlled and monitored.

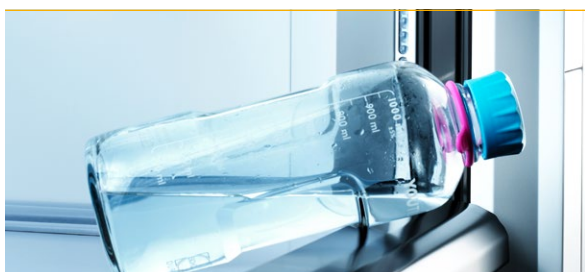
Fume cupboards are also available in the basic version without EXPLORIS TouchTronic®. Instead, EXPLORIS AirMonitor® is used in this case, which monitors the exhaust air volume flow of the fume cupboard. This solution can be used to create fully-fledged, standard-compliant fume cupboards. However, the functionality of these fume cupboards is limited compared to models with EXPLORIS TouchTronic®.

**EXPLORIS AirMonitor®**

Depending on the configuration, it monitors the air volume flow or the face velocity of the fume cupboard in m³ per hour. When falling below the limit value, it is displayed both visually and acoustically and, if necessary, forwarded to the building control system.

**EXPLORIS AutoProtect®**

When leaving the workplace at the fume cupboard, the EXPLORIS AutoProtect® closes the sash automatically. The sash is opened and closed via the slider on the touch screen, via the foot switch or by slightly lifting the sash – thanks to EXPLORIS SoftMatic.

**EXPLORIS CloseGuard®**

Ensures that the sash does not close automatically if something protrudes into or out of the fume cupboard.

**EXPLORIS AirControl®**

The fully variable exhaust air control ensures that the required exhaust air is only as high as the safety demands.

**EXPLORIS VarioTop®**

Automatic adjustment and programming of individual working heights with changing requirements such as sitting / standing height or different height experimental setups in the interior of the fume cupboard.

**EXPLORIS LevelControl®**

A fill level monitoring unit for the collection of liquids directly in the fume cupboard. A maximum of two EXPLORIS LevelControl® per fume cupboard can be connected.

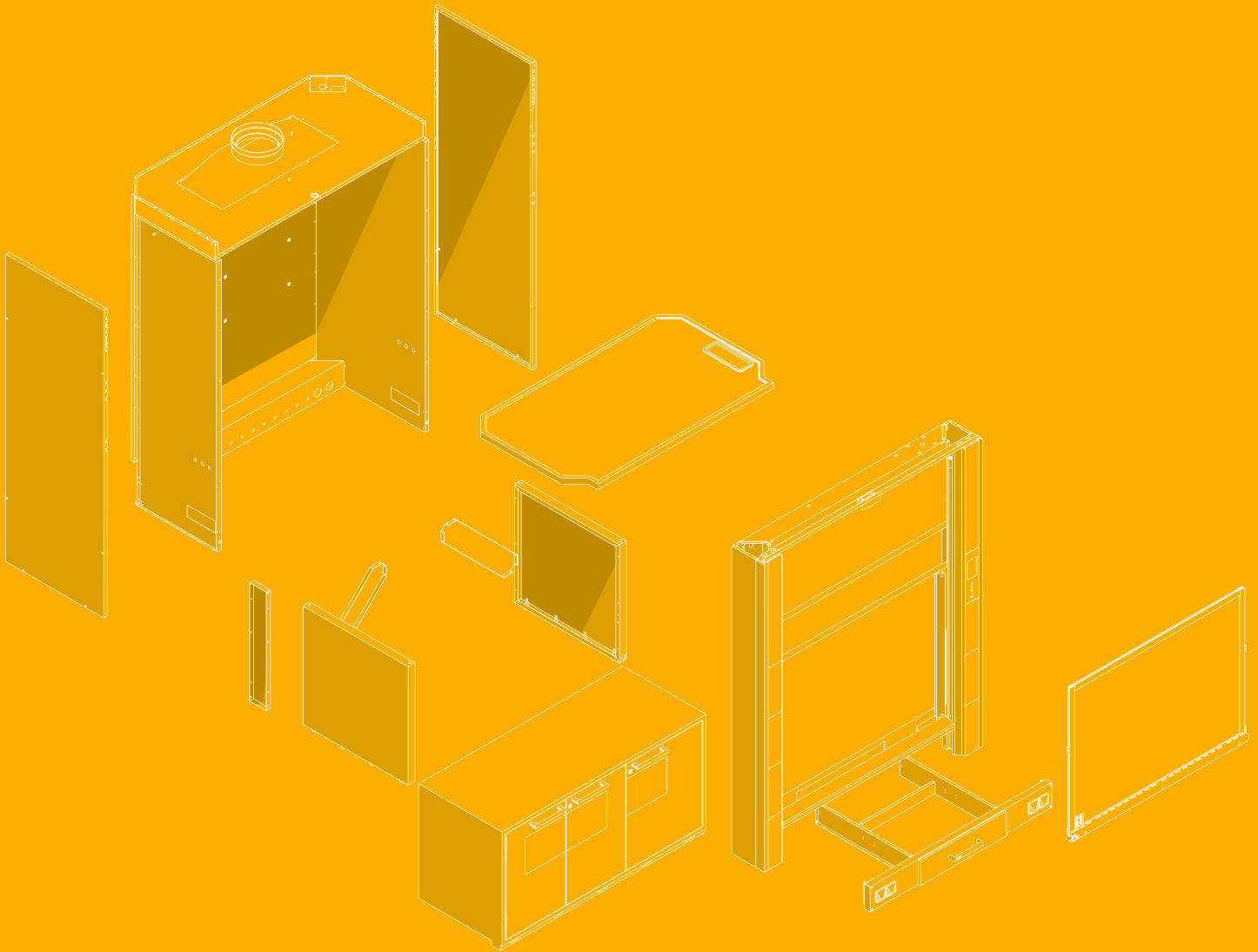
**Additional functions**

- Update, remote diagnosis and parameterisation via USB interface
- Switching of electrical components (fan, lighting, exhaust air scrubber)
- Programming of sockets in the interior of the fume cupboard
- Temperature monitoring (high-performance fume cupboard)



# Modularity

Individual and flexible modularity  
which provides safety



## Description

Köttermann meets the requirements for individuality with its high modularity of the fume cupboard range. This is the only way for fume cupboards to meet the most diverse requirements in daily laboratory work and provide optimal support for work processes.

### Housing sides

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- Closed
- With side window
- With sockets
- With cable bushing

### Housing

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- Housing height 2250 mm
- Housing height 2550 mm
- Interior height ca. 1200 mm
- Interior height ca. 1500 mm
- Interior height ca. 1850 mm (distillation fume cupboard)
- Interior height ca. 2400 mm (walk-in fume cupboard)
- Ceramic lining
- Polypropylene lining
- Trespa® TopLab® VERTICAL lining

### Exhaust air vent

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- DN 250 mm
- DN 110 mm for pharmacy fume cupboards

### Monitoring / Control

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- EXPLORIS AirMonitor® with pressure sensor for monitoring the volume flow
- EXPLORIS AirMonitor® with flow sensor for monitoring the face velocity
- EXPLORIS AirControl® fully variable volume flow control

### Lighting

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- T5-fluorescent tube
- LED lamp
- LED lamp, explosion-proof

### Front

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- Front height 2300 mm
- Front height 2550 mm

### Sash

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- One-piece with sliding glass panels
- One-piece with fixed glass panel
- Two-piece telescopic sash with sliding glass panels
- Two-piece telescopic sash with fixed glass panels

### Material for glass panels

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- Two-piece laminated safety glass
- Two-piece laminated safety glass with side sliding panels
- Polycarbonate
- Polyacrylic glove openings

### Underbench frame

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- Unequipped
- Sockets
- Sockets and drawers
- Individual service equipping (for example fluid services, high-purity gases)
- Function display for scrubbers at high-performance fume cupboards
- Drawers

### A / C frames

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- Width 1200 mm
- Width 1500 mm
- Width 1800 mm
- Width 2000 mm
- Width 2100 mm

### Worktops

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- Ceramic
- Composite ceramic
- Laminated glass
- Epoxy
- Polypropylene
- Trespa® TopLab® PLUS
- Stainless steel

### Underbench cabinets

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- Without (knee-space panel)
- Standard underbench cabinet (optionally extracted)
- Chemical storage underbench cabinet
- Acid and base underbench cabinet
- Underbench safety cabinet for flammable liquids
- Mobile underbench cabinet

### Services

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- Gases / High-purity gases
- Water / demineralised water
- Cooling water / vacuum
- 230 V / 400 V
- Fuses / RCCB

[www.koettermann.com](http://www.koettermann.com)  
[www.kottermann.com](http://www.kottermann.com)

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