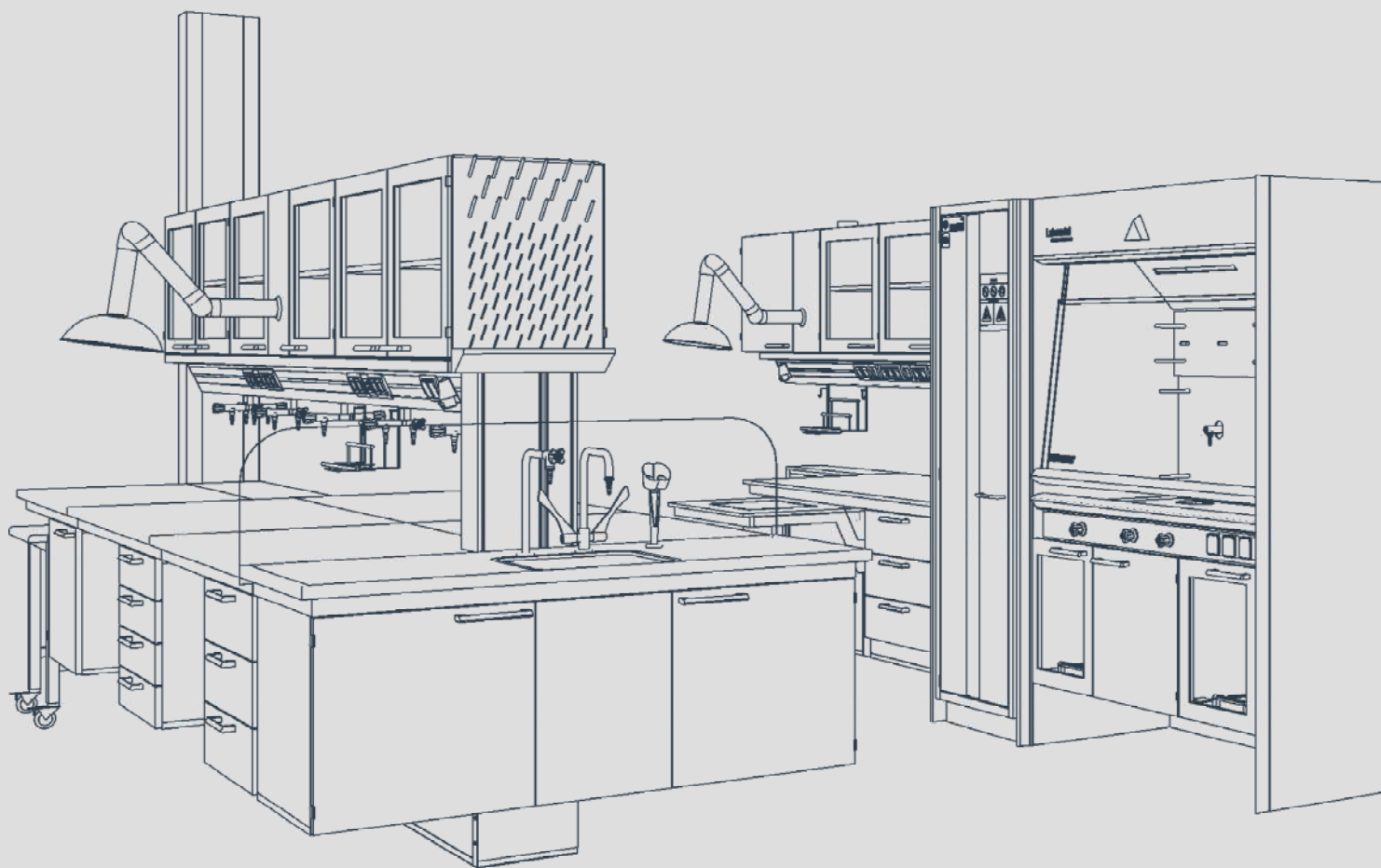


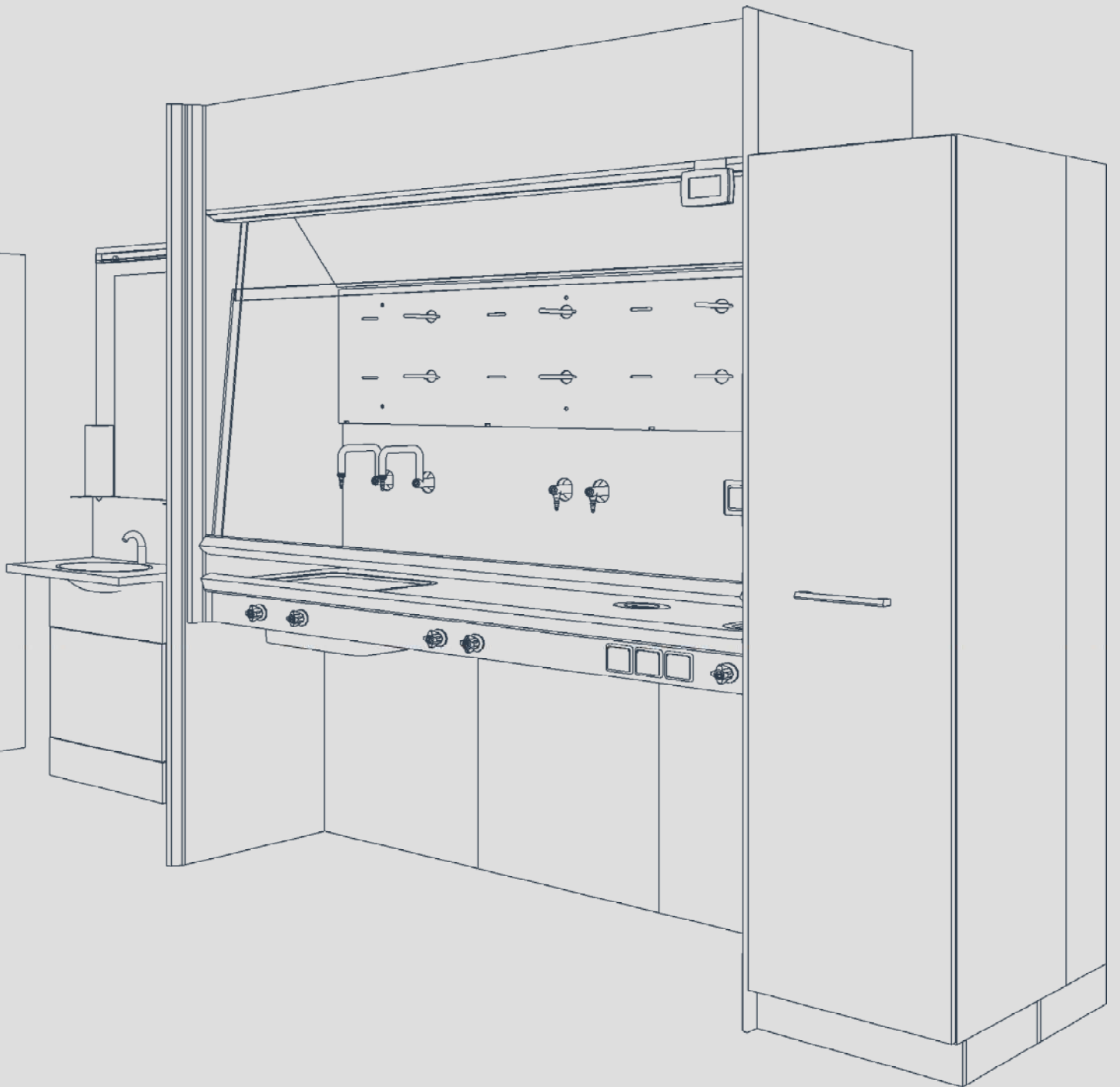
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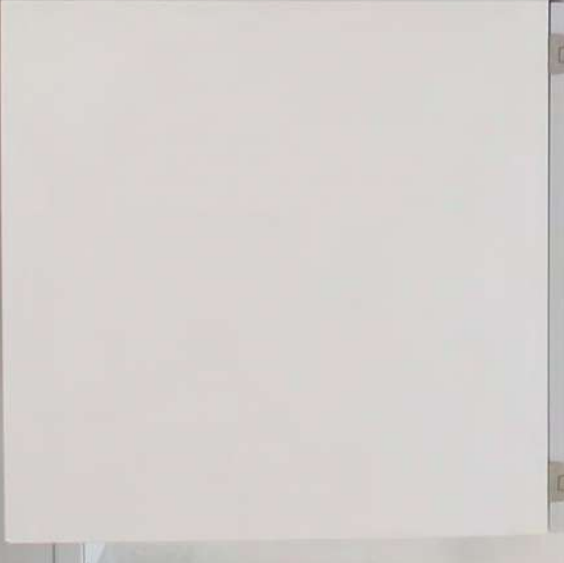
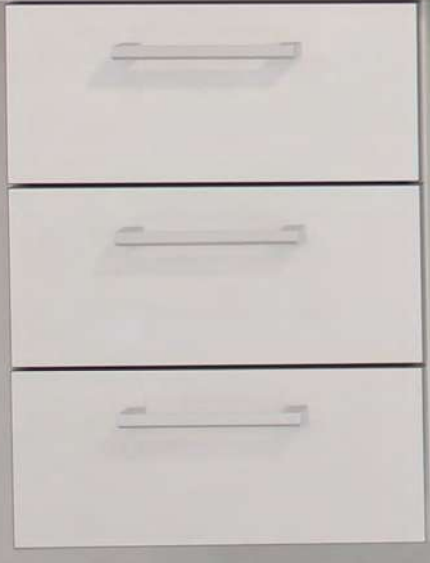
Designing safety



Designing safety...









FUME CUPBOARD GREENLINE BASIC



GREENLINE BASIC

- ┌ Personal safety
- ┌ High quality for everyday use
- ┌ Designed for GMO facilities
- ┌ Ergonomic and comfort features
- ┌ EN/DS 14175



GREENLINE™ BASIC

Effective fume cupboard for safety, ergonomics in a modern and timeless design. The fume cupboard is designed according to the EN / DS 14175 fume cupboard standard and meets all international safety requirements.

GREENLINE™-series is prepared for a range of options that provide the cupboard with comfort, service features. The fume cupboard is designed for flexibility in the future requirements, features and ergonomics.

The fume cupboard cabinet can be fitted with a sash window automation that intelligently works in conjunction with the fume cupboard and room automation.

Design

Cabin aerodynamics

The fume cupboard cabin is the central part of effective personal protection. The safety is optimized to ensure even airflow both with and without equipment and set up in the cabinet.

Flexibility

GREENLINE BASIC-series is configurable and consists of a basic module that can be customized according to specific needs and functional requirements. For future needs, the fume cupboard can be easily expanded with additional technical media outlets or other functions.

Direct personal protection

The sash windows are made of safety glass, which protects the user in case of an accident with a chemical attack, or explosion.

The sash window is balanced with a counterweight located on the rear of the fume cupboard, which allows easy operation of the sash window. A double wire system made of acid-proof stainless steel, attached with professional system fittings, connects the two components.

Instant lock - fall protection

In the event that a fracture occurs on a wire or bracket, the built-in fuse locks and maintains both the sash window and counterweight in position so that injury is avoided.

Pressure safety device

In case of sudden overpressure in the cabin, for example, by an explosion, the pressure is effectively led away from the operator via 2 explosion fields and the light fixture located at the top of the fume cupboard cabinet.

Lighting

BASIC fume cupboard comes with dual fluorescent luminaire color 83, with 500 lux work light on the tabletop.



Security

Airflow technology

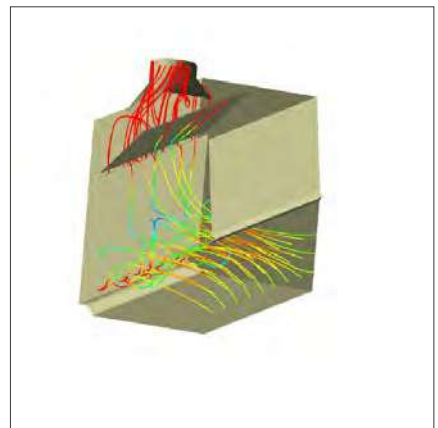
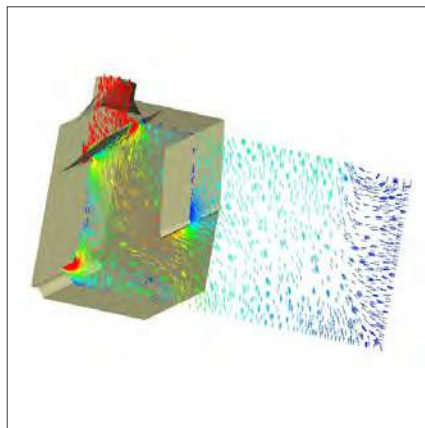
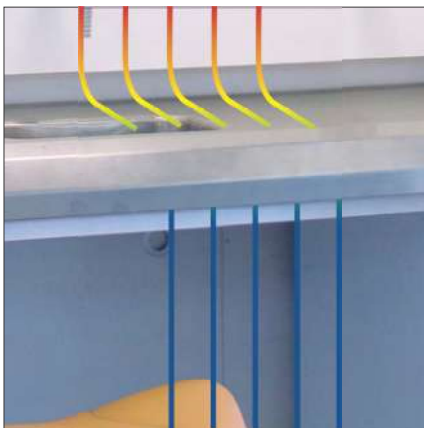
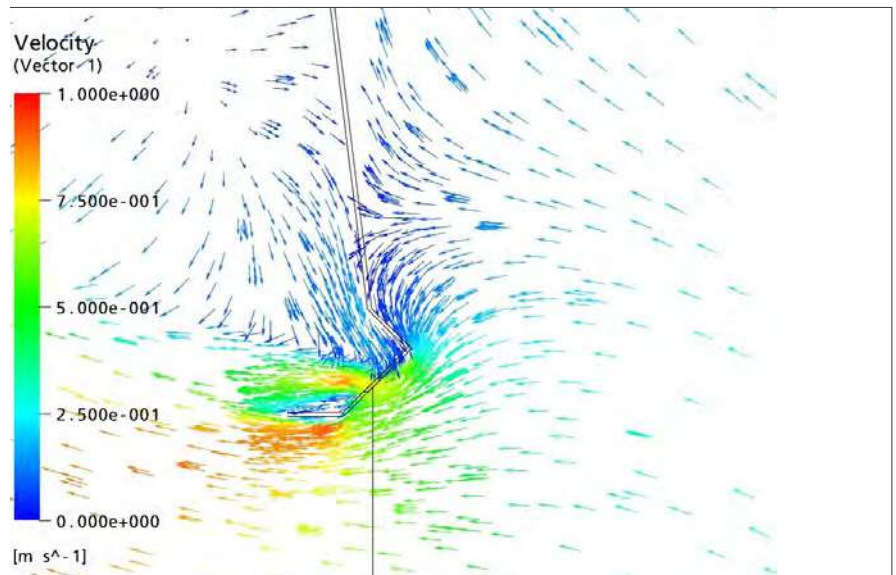
The security and protection of the user is the most important feature of the fume cupboard.

The operator is effectively protected from chemical vapors, gases, aerosols, carcinogens, and other harmful media.

The fume cupboard cabinet acts as a physical barrier between reactions in the fume cupboard and the laboratory and is designed to protect against chemical spillage, runaway reactions, fires, etc. Ventilation flow in the fume cupboard prevents the accumulation of potentially explosive materials or vapors in the cabin.

The sash is fitted with a protective rail, and on the front of the worktop, a table airfoil ensures a uniform flow across the work surface. This prevents unintentional air turbulence, which may result in increased emissions and harmful emissions from the work cabinet.

Also on the sides, the air is safely controlled through the work opening via the rounded aluminum lesenes and the proven design ensures that airflow is properly controlled and removes heavy gases, vapors, and other harmful substances from the cabin.



Ventilation

The Fume cupboard is connected via the stud on the top deck to the house ventilation system, either via a motorized damper connected to the main ventilation system or a separate frequency-controlled fan box.

According to EN / DS 14175, there is a requirement that the Fume cupboard is equipped with an alarm and control unit. The built-in ventilation control automatically ensures proper ventilation when the Fume cupboard is in operation.

The Fume cupboard works by maintaining a negative pressure in the fume cupboard cabinet to prevent any contaminant from escaping. The air passes into the Fume cupboard between the tabletop and the sash, and the air velocity is measured in meters per second (m/s).

An excessive air velocity in the fume cupboard cabin can result in heavy turbulence and thus a risk of spillage of harmful fumes.

An excessively low air velocity may also give rise to spillage. The correct

air velocity is therefore essential for a safe and economically efficient fume cupboard.

Recommended air velocity 0.5 m/s.

Trace gas tests

According to EN / DS 14175, there is a requirement that after installation and adjustment of ventilation and fume cupboard an on-site test is performed including a trace gas measurement. Read more about this in the "On-site test" prospect.

Energy savings

In order to save additional energy, these fume cupboards can be fitted with automatic sash windows, which further reduces the air velocity when the sash is closed.

Read more about this in the prospectus "Energy-saving lifting automation - GIS system".

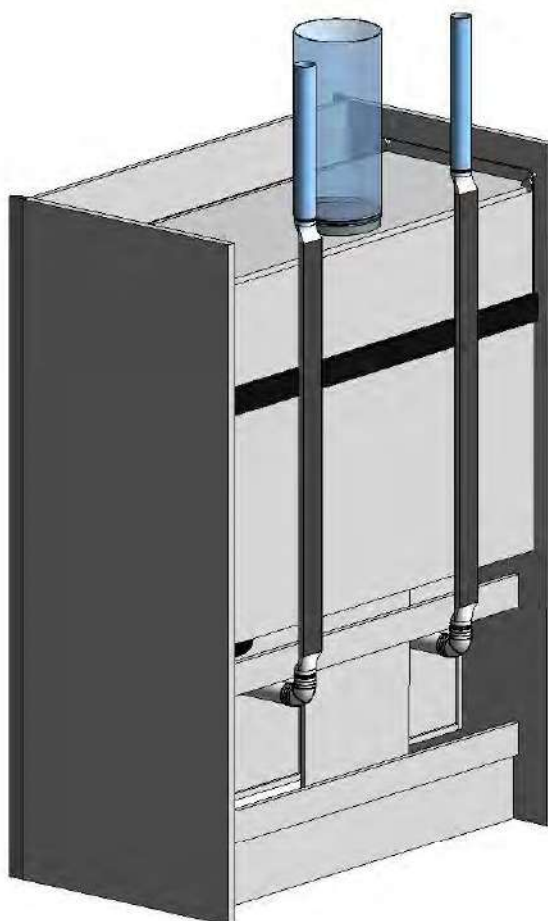
Suction from chemicals

Chemicals must be stored properly and stored in a ventilated cabinet with

extraction. In the case of substances that are poisoned, the cabinet must also be locked.

Chemical cabinets must be equipped with constant extraction 24 hours a day and function independently of the fume cupboard process ventilation

- ♦ The chemical tall cabinet is connected at the top to an Ø100 mm flange stub.
- ♦ The chemical Underbench cabinets are connected to a Ø50 mm stub located on the top of the fume cupboard.



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GREENLINE BASIC

VICID RUBIN LIKAT
KUP BAHU CLOSED

ascos

EN 10470-1

90



Sustainability

The fume cupboard is made of resistant materials for professional use and is prepared for the installation of sockets for electrical and plumbing both inside and outside the fume cupboard cabinet.

Greenline™ has been developed with a particular focus on sustainability and reducing CO2 footprint.

Certified quality components are used by recognized Danish and European producers.

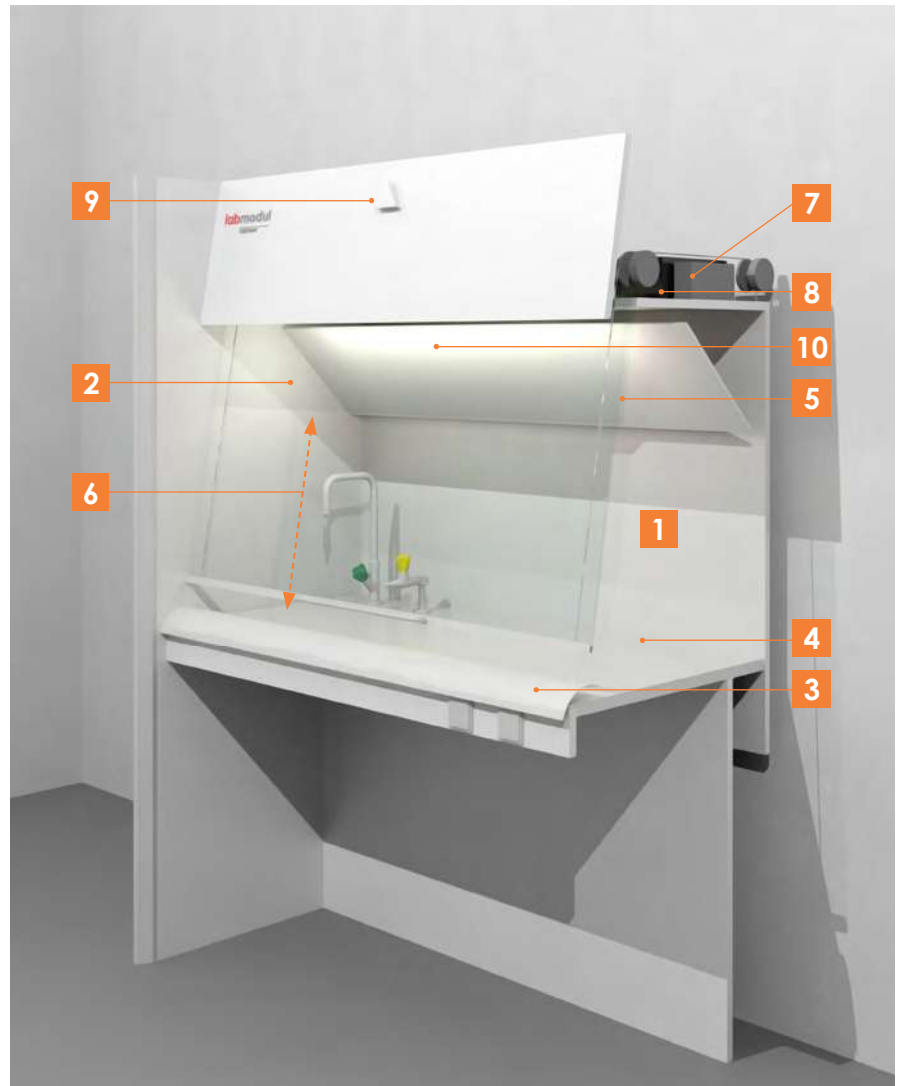
The material selection has been made to meet the requirements of Labmodul A / S for the use of products that are or may be used in a natural recycling cycle for both energy and environmental reasons.

Including a sample of typically used recycled materials in the production of the Greenline Pro fume cupboards.

- ♣ Furniture plate based on recycled wood
- ♣ Glass
- ♣ Steel
- ♣ Stainless steel
- ♣ Aluminum
- ♣ Copper / cables



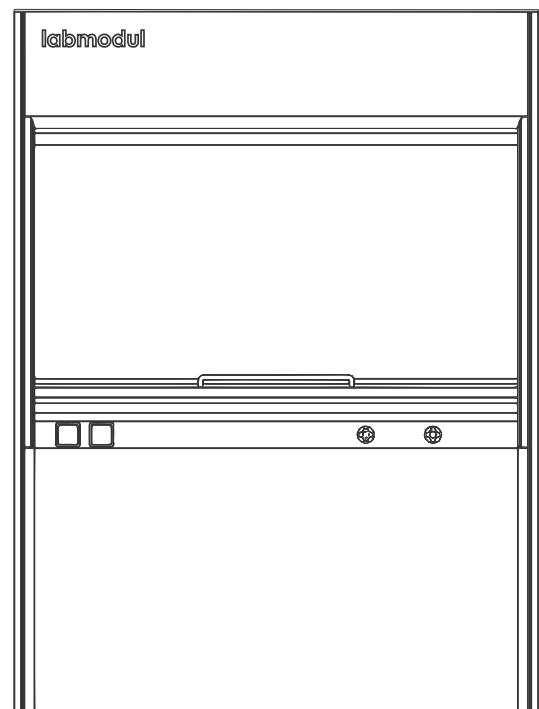
1. Fume cupboard cabin
2. Sash window
3. Worktop airfoil
4. Worktop
5. Slanted Cover
6. Working opening
7. Alarm and fume cupboard automatic box
8. Energy saving automatic sash system
9. Person detector for fume cupboard
10. Light



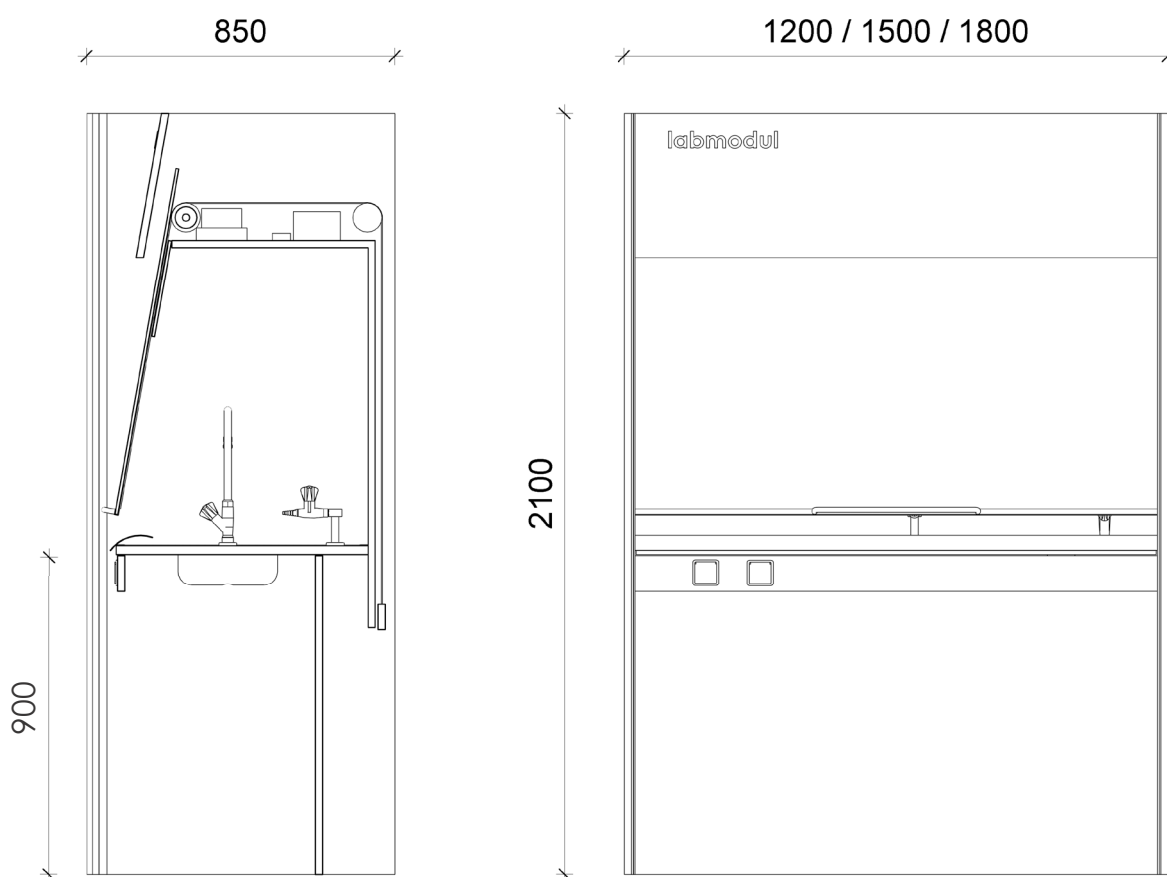
Accessories and ADD-ON's

The Greenline BASIC series can be configured with additional service and comfort features that increase functionality and create additional ergonomic benefits.

- ◆ Chemical and storage cabinet
- ◆ A wide range of table tops, drip cups and sinks
- ◆ VAV systems and alarms
- ◆ GIS, energy-efficient automation sash system



GREENLINE BASIC



Technical data

Model STB-SFA	Greenline Basic 120	Greenline Basic 150	Greenline Basic 180
Width outside (mm)	1200	1500	1800
Depth exterior (mm)	850		
Height exterior (mm)	2100		
Width inside cabin (mm)	1140	1440	1740
Depth countertops (mm)	680		
Height inside cabin (mm)	1025		
Max sash opening (mm)	700		
Connector for ventilation (mm)	Ø250	Ø250	Ø315
Position from the back wall to ventilations c-c (mm)	207.5	207.5	240
Position from fume cupboard side to c-c (mm)	600	750	900
	Fixed bottom		



V HOLD RUDEN LUKKET
KEEP SASH CLOSED

F6

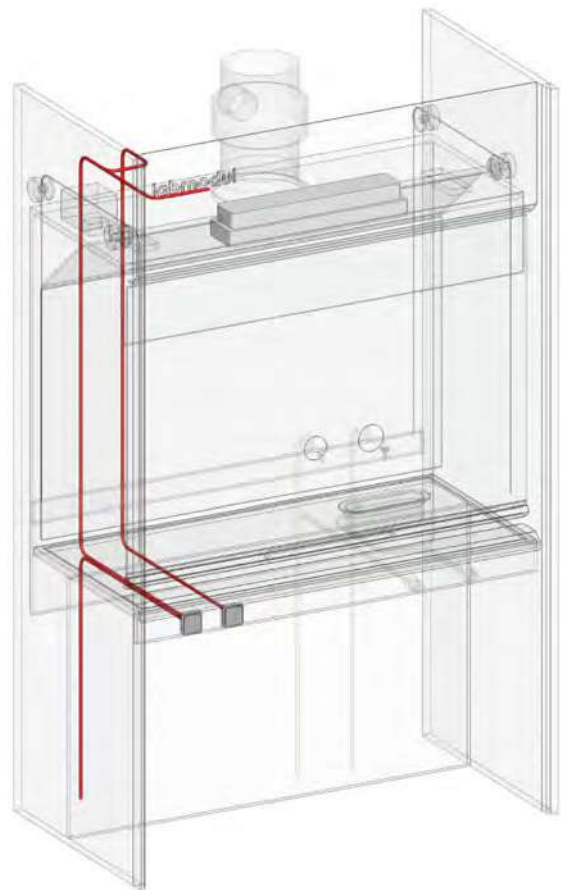
Electrical installations

Internal cable connections are made in 3-wire installation cable with 1-phase distribution. The installation is completed in a junction box located on top of the fume cupboard. From the assembly box, a cable length of 130 cm is completed with a CEE plug 16A.

Consumption on the stage up to 2200 watts.

The fume cupboard is supplied with all internal connections made in cable installation and in accordance with the Strong Power Order, Section 6, Electrical Installations.

In case of special fume cupboards that must meet ATEX requirements, this is carried out in accordance with the applicable regulatory requirements.



Plumbing installations

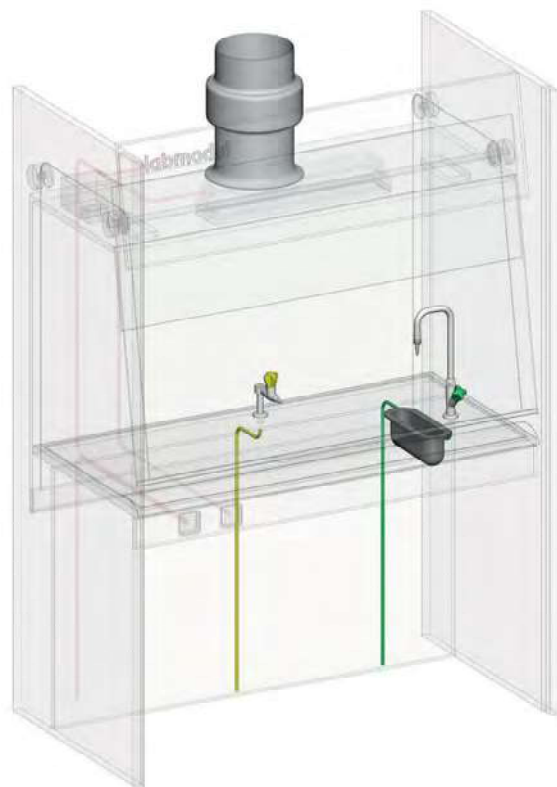
In general

Internal plumbing components are carried out in the BRIDGE UniFlex system. The system includes a wide range of fixtures and a unique concept of hoses for the conveyance and connection of plumbing installations.

The fume cupboard is supplied with coupling hose (plug'n play), that ends in a ½ "uniflex omliver, which also constitutes the contract price between" house "installations.

Fume cupboard with height adjusting function is performed with a flexible hose after water trap.


























Manufactured pressure test.





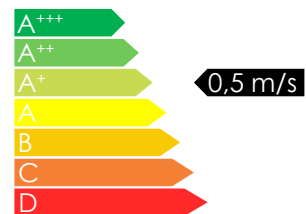


Media overview

 01 - Water potable, cold (WPC)	 23 - Nitrogen (N ₂)
 02 - Water potable, hot (WPH)	 24 - Carbon Dioxide (CO ₂)
 03 - Distilled water (WDI)	 25 - Argon (Ar)
 07 - Water non-potable, cold (WNC)	 26 - Helium (He)
 08 - Water non-potable, hot (WNH)	 27 - Dinitrogen monoxide, nitrous oxide (N ₂ O)**
 10 - Natural gas (G)	 28 - Low vacuum - 100 kPa to 0,1 kPa (V)
 12 - Liquefied petrol gas (LPG)	 29 - Fine vacuum - 0,1 kPa to 0,001 kPa (VF)
 14 - Butane (C ₄ H ₁₀)	 30 - High vacuum - 0,1 kPa to 0,0000001 kPa (VH)
 16 - Propane (C ₃ H ₈)	 35 - Tempered water (one handle mixer)
 18 - Acetylene (C ₂ H ₂)	 36 - Deionised water, cold (WDC)
 20 - Hydrogen (H ₂)	 39 - Water potable (WPC /WPH)
 21 - Compressed air (CA)	 40 - Water non-potable (WNC /WNH)
 22 - Oxygen (O ₂)**	46 - Methane (CH ₄)

Air volume in m³/h at 0,5 m/s

Opening cm	10	15	20	25	30	35	40	45	50
Greenline Basic 120	200	300	400	500	600	700	800	900	1000
Greenline Basic 150	250	390	500	630	760	890	1015	1140	1270
Greenline Basic 180	300	480	600	760	920	1080	1230	1380	1540
Greenline Basic 240	400	600	800	1000	1200	1400	1600	1800	2000

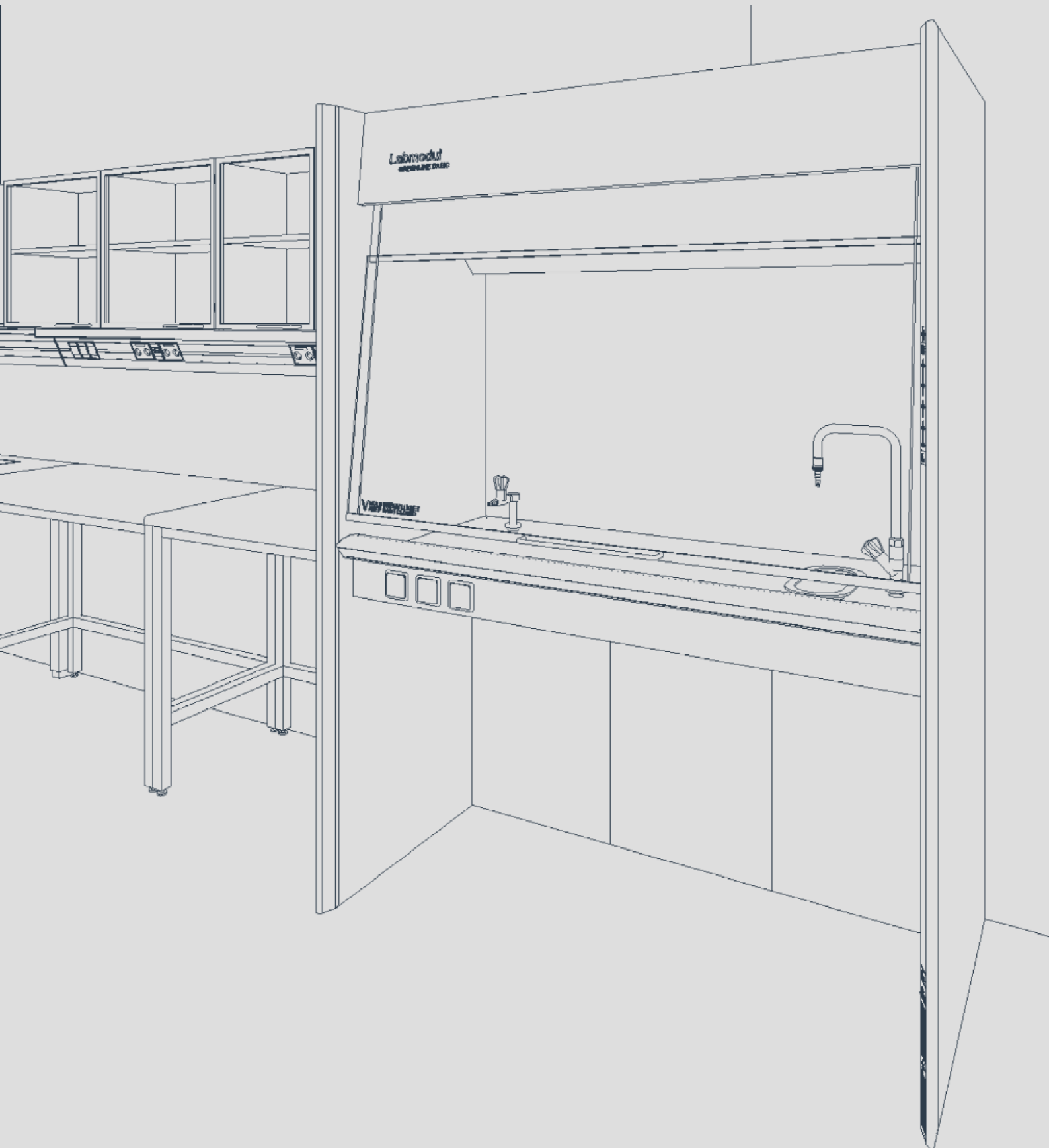


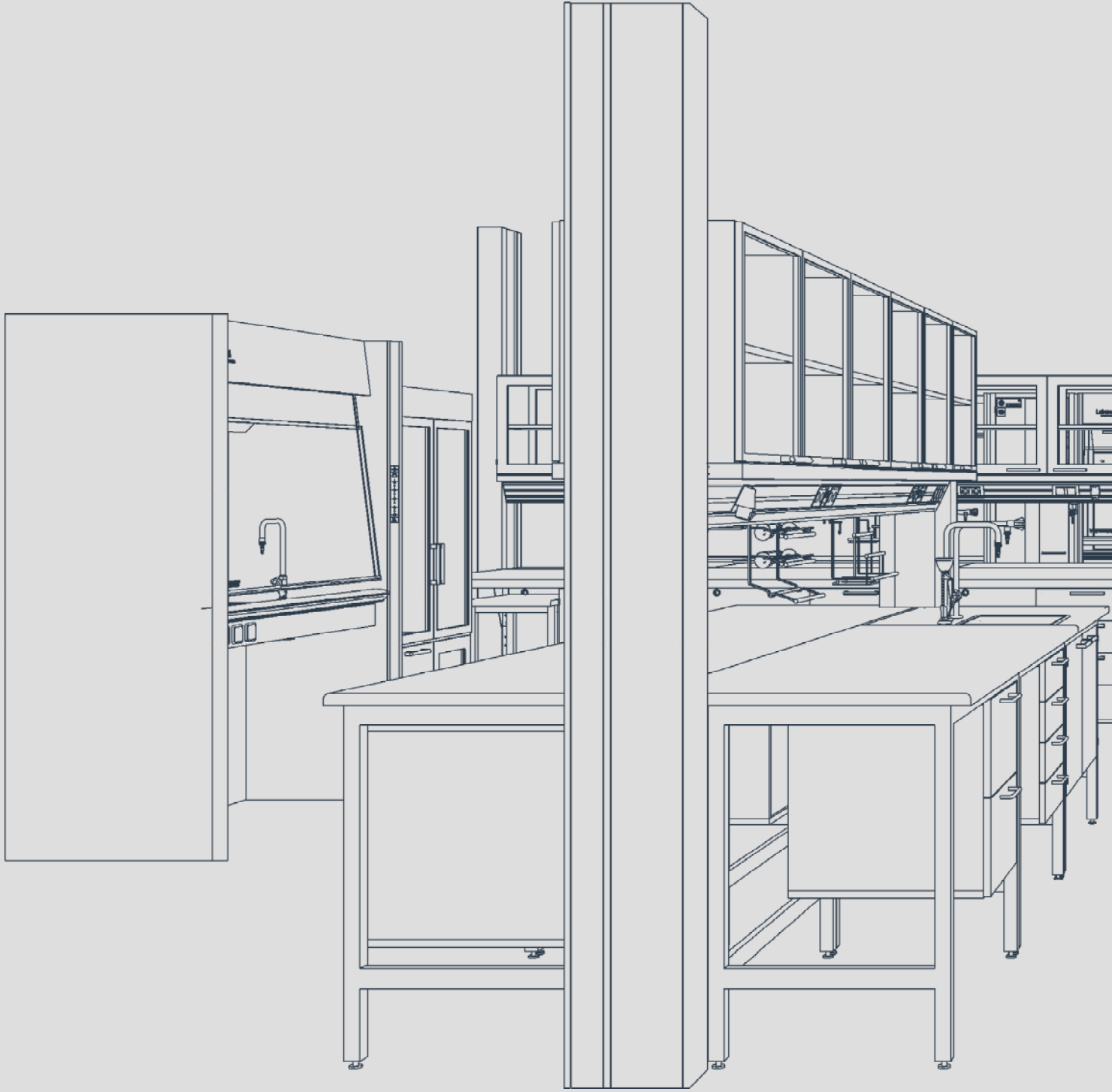
Ventilation connection

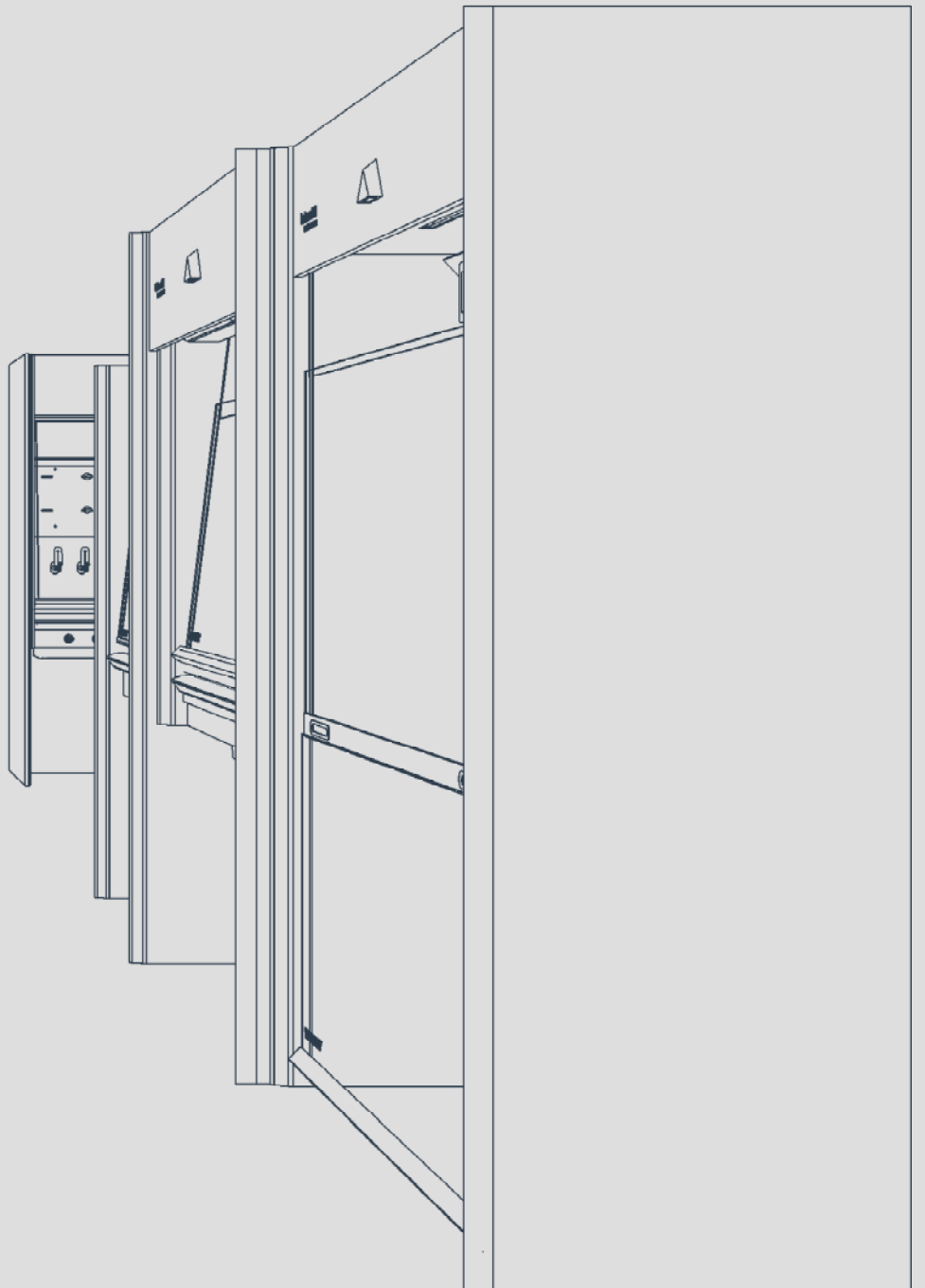
Model Basic	Greenline Basic 120	Greenline Basic 150	Greenline Basic 180
Outside width (mm)	1200	1500	1800
Connection pipe for ventilation (mm)	Ø250	Ø250	Ø315
Height from floor to OK stud (mm)	2385		

Internal / external hose types & connections

Labmodul					INTERNAL / EXTERNAL HOSE TYPE & CONNECTIONS	installation-related			
Media	Tube	Pressure	Collection	Dimension		Dimension	Collection	Valve	Zone
Domestic Water	Uniflex (SPX)	Max. 10 bar	G½"	G½"		G½"	Nippel	Shut-off valve	A
DEM water	PA	Max. 6 bar	G½"	G½"		G½"	Nippel	Shut-off valve	A
Technic gas	Uniflex (SPX)	Max. 16 bar	G½"	G½"		G½"	Nippel	Shut-off valve	A
Burning gas	Uniflex (SS)	Max. 132 bar	G½"	G½"		G½"	Nippel	Shut-off valve	A
Clean gas	Uniflex (PTFE)	Max. 21 bar	OD10/Ø10	OD10/Ø10		OD10/Ø10	Nippel	Shut-off valve	A
Strainer	PP	-		G1½"		G1½"			B









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Version: ★ ★ ★

LABMODUL A/S

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