



CLAIRE® XL – SAFETY CABINET
Size for automation and more

berner

CLAIRE® XL THINK BIG



Extremely spacious

The extremely extended workspace offers plenty of space for large laboratory equipment with optimum personal and product protection.

Customised solutions



Specific adaptation to individual applications is possible. For example, flush integration of a system into the work level of the safety cabinet, including all connections.



Testing in own cleanroom lab

Confirmed protection functions with microbiological test procedures acc. to EN 12469 and DIN 12980

CLAIRE® XL – MORE ROOM FOR YOUR WORK

Claire® xl sets completely new standards for safety cabinets with the sum of all components and features – but especially due to the enormous size of the workspace. Although literally the “measure of all things” can still set limits in individual cases – these extra-large safety cabinets provide comfortable space and the necessary environment for most laboratory equipment and applications – with optimal protection for the experiment and for the user.



MORE PROGRESSIVE

36 YEARS
– Experience in the development and production of safety cabinets

DEEPER

745 MILLIMETER
– Depth of usable workspace directly for your application



Touch Display
Intuitive operation and user-friendly menu navigation

1,36 m² work area and 1200L volume

1 Quality seal

Multiple award-winning product design in the selection criteria – degree of innovation, safety, sustainability, aesthetics, industrial feasibility and implementation.



Protection Shield

The multiple award-winning “Shield Design” underlines the high design quality and the union of innovation in form and function

Innovative LED-light technology

Apart from the interior LED lighting, laterally arranged LED light bands and the illuminated window edge in direct view of the user visualize the operating state or alarms and guarantee the highest security

Unique Filtertechnology

Special HEPA cartridge filter for even lower sound levels and energy consumption

Movement-Measurement-System

Detection system for moving persons and the resulting air perturbation near the access opening creates warnings and raises awareness of the laboratory personal

* awarded for a model version of Claire pro

POWERFUL

2500 CUBIC METER
– This much of air is moved within an hour

SAFE

2000 AIR CHANGES
– That often the air inside the workspace is cleaned per hour

EXTREMELY EXTENDED WORKSPACE



COMPARISON OF CLAIRE® XL AND CLAIRE® PRO

Much more room –
e.g. for automation of several
processes in laboratories

CLAIRE® EXTENDED – WHEN SPACE MATTERS

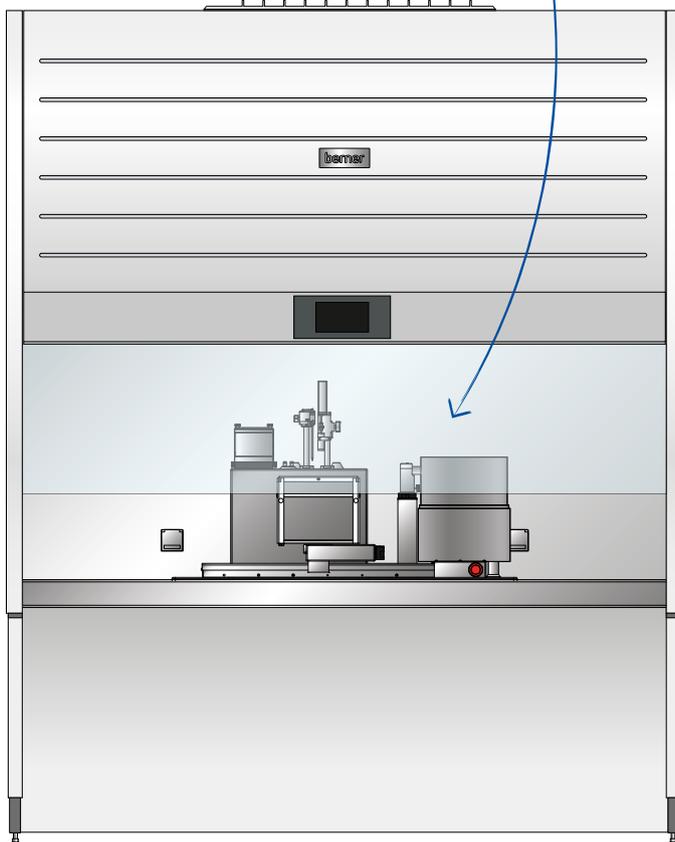
The Claire® xl models have an extremely extended workspace for demanding applications. Total depth is 927 mm and the safe usable area has a depth of 745 mm. The workspace height is 824 mm at the front of the workspace and drops to 690 mm at the back wall. This means that laboratory equipment and most large-scale devices, used increasingly in the microbiological and pharmaceutical sector, can be operated under perfect aseptic conditions (product- and cross-contamination protection).

With the 3-filter system this is especially possible in processes where an increased risk of exposition to hazards exists for the user. Combined personal, product and cross-contamination protection is e.g. required in handling of biological hazards (biological protection level 2–4) or of toxic or carcinogenic agents (e.g. cytostatics, antivirals and other highly active pharmaceuticals).



EXAMPLE AUTOMATED FILLING MACHINES FROM COLANAR

The xl now makes it possible to use large devices in the Claire, such as the modular filling and closing system type FSM for the pharmaceutical sector. The dimensions are about 1340 x 550 x 800 mm with a weight of about 100kg.



USEAGE

More capabilities

SOME AREAS OF APPLICATIONS FOR EXAMPLE:

- + Automated filling, dosing and sealing systems for pharmaceuticals, including compounders for parenterals and cytostatic preparations.
- + Pipetting robots and liquid-handling systems for laboratory automation of assay preparation (PCR, ELISA etc.), for cell line development in bioreactor systems and similar instruments.
- + 3D printers in material production e.g. of medical devices. Especially for bio-printing with special techniques for tissue engineering and synthetic biology. Generally, common techniques release particles and pollutants to a considerable extent.
- + Plunger for sample preparation in electron microscopy
- + Laboratory devices such as freeze-dryers, centrifuges, shaker and incubators
- + Cell cultivation in bioreactors
- + Weighing and filling operations, e.g. with large scales, large containers or numerous samples.

For this and so much more, the extra-large Claire® xl offers the perfect space.



Claire® xl 160 – 2 Filter, article no 202016

Claire® xl 160– 3 Filter, article no 202022



Claire® xl 190 – 2 Filter, article no 202015

Claire® xl 190– 3 Filter, article no 202013

CONSTRUCTION AND INSTALLATION OF CLAIRE® XL

→ Premium Quality

The interior work space has a first-class and solid finish, is made entirely of stainless steel and safety glass, durable, resistant, virtually joint-free and easy to clean. All components, options or modifications of the safety cabinet are implemented by our qualified employees in the design and production department with the highest quality standards.

→ Size and weight

Claire® xl offers plenty of space for your applications. As a result, the dimensions are correspondingly large. Therefore, weight and size should be kept in mind during planning and installation. The empty weight is between 550 and 650 kg, the width is 1185 mm and the height between 2.340 –2580 mm. Where possible, our partners' service engineers will gladly assist you in assessing the installation options in some countries

→ Transport and installation

The dimensions become of great importance here as well. Transport and installation are organised by our authorised sales partner. An on-site control of the access course can be helpful. There are alternatives with Claire® xl if direct access seems difficult. The safety cabinet is typically transported separated from the base stand. Additional disassembly up to the complete on-site build-up are also an option.

Safety cabinets from Berner International meet the highest quality requirements and undergo a comprehensive test program before being delivered to the customer. We also offer intensive commissioning, maintenance and other services by our certified staff or our sales partners. From product development through production to commissioning in your laboratory and beyond- quality "Made in Germany".

Berner Safety Hotline: +49 4121 4356-0

Email: info@berner-safety.de

TECHNICAL INFORMATION FOR CLAIRE® XL

General data

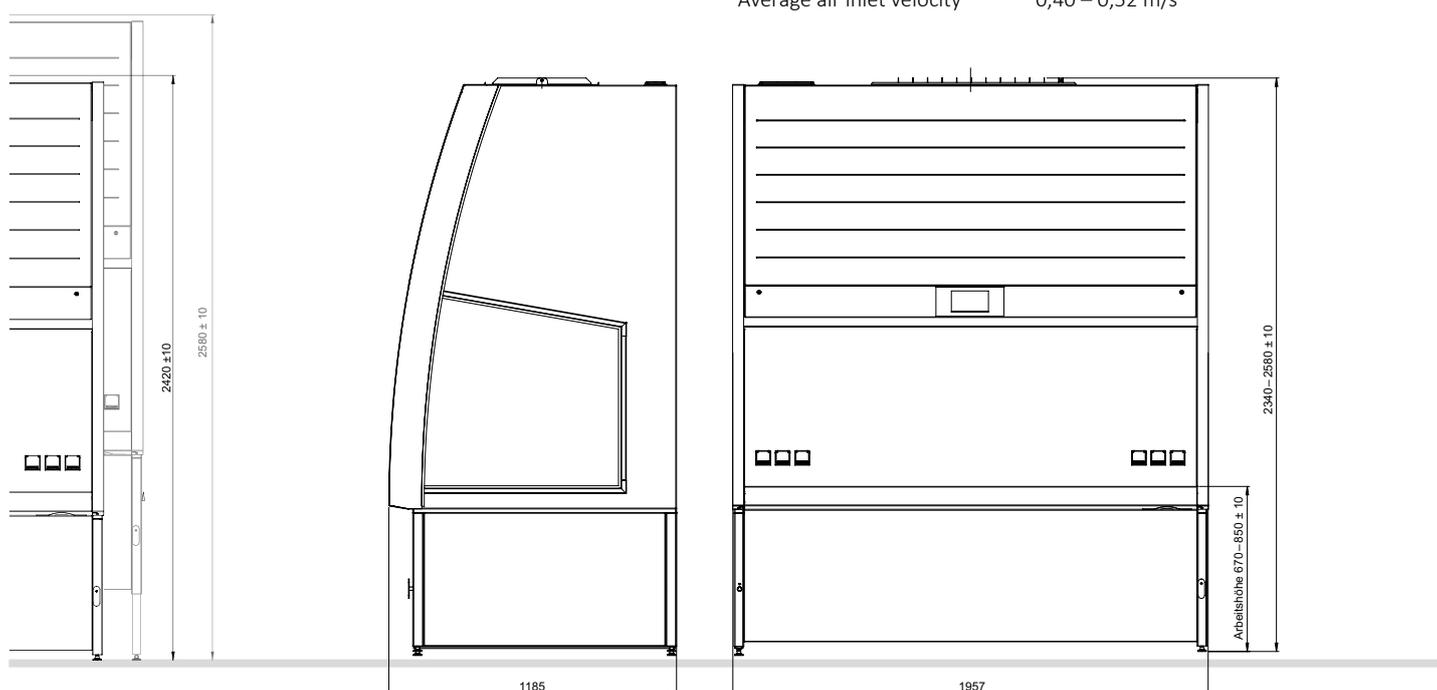
Device	Laboratory device
Device type	Safety cabinet for cytostatics/microbiological
Standards	DIN 12980; DIN EN 12469; NSF 49, Typ A2
Identification	CE
Quality management	DIN EN ISO 9001:2008

General technical data

Nominal illuminance	0–1.100 lux
Vibration (RMS) on the worktops	≤ 5µm
Sound pressure level conforming to ISO 11201 a) (ECO/GMP)	≥ 59,8 dB(A)

Mechanical data

Width, outside	1.654, 1.957 mm
Height, outside	2.340 – 2580 mm
Depth, outside	1.185 mm
Usable work surface (WxD)	1.519 x 745 mm, 1.822 x 745 mm,
Work surface height	(5 levels) 670–850 mm
Width, work room	1.559 mm, 1.862 mm
Height, work room	695–824 mm
Depth, work room	927 mm



Material-specific data

Material of work area	1.5 mm thick stainless steel, material no.: 1.4301
Surface quality of work area	320 grind, medium roughness $R_a \approx 1.6 \mu\text{m}$
Housing material	Powder-coated 1.5 mm thick Zincor steel plate, material no.: 1.0330
Front-, side and rear panels	Multi-layer safety glass with intermediate film to absorb UV radiation
Powder coating colour	White RAL 9003 matt; black RAL 9005 matt

Electrical data

Nominal voltage/nominal frequency	230 V AC / 50 Hz
Power consumption	up to 800 W [1]

Technical air data

Exhaust and supply air volume flow	ca. 675 – 800 m³/h [2]
Exhaust volume flow (with non-reactive exhaust connection)	750 – 900 ± 100 m³/h [2]
Filterclass(s) with recirculation and exhaust air filter	Minimum H 14 (separation efficiency: $E \geq 99,995\%$) in accordance with DIN EN 1822-1 [3]
Cleanroom class in the work space	Average air inlet velocity
Displacement flow velocity	0,44 m/s (GMP)
Average air inlet velocity	0,40 – 0,52 m/s

[1] depends on work mode, use and model size, without internal power consumer

[2] depends on work mode and model size

[3] Integral retention level at the minimum or with maximum penetration at the so-called Most Penetrating Particle Size (MPPS)



* Awards were given to a model version of Claire® pro

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