

CLAIRE® NEO – EXPERIENCE THE NEW FLEXIBILITY White Paper

Maximum safety and flexibility for the laboratory of the future - with a new generation of safety cabinets, the claire® neo, Berner International is setting new standards for safety, design and function.

The claire® neo concept allows users from the pharmaceutical, medical and biological fields maximum flexibility and also meets future laboratory requirements. The main focus of this new flexibility is the production in metric increments of 30 cm. The previous model series, claire® pro/pure, as well as competitor models were historically based on Anglo-American HEPA filter dimensions in foot increments (1 foot = 30.4 cm), which resulted in fractional dimensions. The claire® neo, on the other hand, integrates perfectly into the modern laboratory environment thanks to its external dimensions of 1200 mm, 1500 mm, 1800 mm or 2100 mm and enables maximum efficient use of space and planning of laboratories.



Figure 1: The claire® neo safety cabinet

In order to be able to adapt to new requirements and applications, the design of the safety cabinet also allows subsequent adaptations. For example, different types of worktops, interfaces for data transmission and power supply as well as media access points for gases and liquids can be easily retrofitted by service technicians or users themselves. In addition, the innovative architecture of the air duct allows the safety cabinet to be retrofitted on site from a 2-filter system to a 3-filter system in order to increase safety when working with cytostatics or hazardous biological substances.

The flexibility of the claire® neo is also increased by the new worktop concept. The universal design makes it possible to exchange and combine all worktops between all claire® neo models. This enables individual adaptation to the respective process. Berner International provides users with an extensive portfolio of standard worktops made of stainless steel as well as a variety of special models to choose from. These include worktops made of white safety glass for a particularly bright working environment as well as functional worktops with an integrated temperature control function or keyboard, for example. The power supply and data transfer are carried out using the plug-and-play function underneath the worktop. Thanks to the flush and liquid-tight integration, the functions can be used safely without restricting the available space and can be arranged individually in the work area.



Figure 2: Functional worktop with temperature control function made of white safety glass

Digitalization and the Industry 4.0 or Laboratory 4.0 concept are now also playing a decisive role in the research and medical/pharmaceutical sectors. The claire® neo meets these new requirements thanks to flexibly expandable control software and the user-friendly Open Platform Communication Unified Architecture (OPC-UA) interface. This enables the safety cabinet to communicate with other laboratory devices and monitoring equipment and to track and store a wide range of operating data as well as all logins and alarm messages.

In addition, the user interface and menu navigation are extremely intuitive and individually configurable. For example, the user profile can be configured and 15 function keys can be individually assigned via the high-end touch display.



Figure 3: The new High-End-Touch-Display of the claire® neo

The issue of sustainability was also taken into account during the development of the claire® neo. Thanks to the consistent use of high-quality, energy-saving components, intelligent air control and the combination of ECO mode with an ESM function (Energy Save Mode), power consumption has been reduced by 9% to 17% compared to the predecessor model, the claire® pro¹. These effects are reinforced by retrofitting options, the design of all components for a long service life with a typical service life of > 15 years (excluding wearing parts) and the possibility of highly efficient laboratory planning. This means that resource- and investment-intensive new purchases can be avoided as far as possible.

In addition to the innovative new features of the new model, Berner International relies on the proven product features of the previous series. These include the movement measurement system², the multi-award-winning shield design and added value and production "Made in Germany".

¹ per meter working width, claire® neo B-3-150 compared to claire® pro B-3-130 (GMP/ECO mode)

² Detection system for the movement of people and the resulting interference in the vicinity of the work opening