



**OPTIONS AND ACCESSORIES**



### Internal glass door

This is standard equipment in CL/IL/KK ranges.  
This is an additional option available for ST/CHL ranges.  
**Order number: \*/C** (factory fitted).



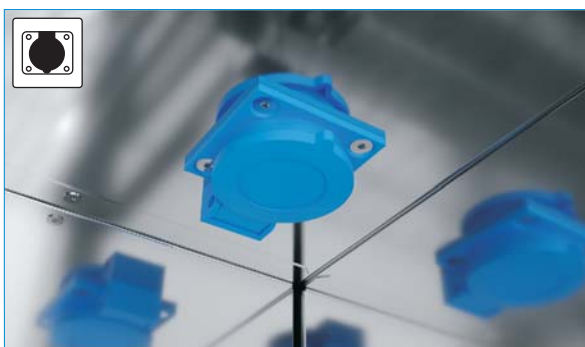
### External glass door

This is an additional option available for ST/CHL ranges and for KK 500, 700, 1200, 1450 models.  
**Order number: \*/A** (factory fitted).  
In case of ST models in Smart PRO version, maximum temperature is reduced to 40°C.



### Door with viewing window

This is an additional option available for CL/IL/SL/SR ranges (except CL/SL 15, 32) and for KK 115, 240, 400, 750 models.  
**Order number: \*/A** (factory fitted).  
In case of SL range, maximum temperature is reduced to +250°C.



### Internal socket

This is an additional option available for ST/CHL/CL/ILW ranges. In case of CL/ILW maximum temperature is reduced to +70°C.  
**Order number: GNZ** (factory fitted).  
Internal socket allows to plug in additional equipment inside the chamber, e.g. laboratory shaker.  
Max socket peak load 200 W (max 3pcs).



### Interior lighting

This is standard equipment in ST/CHL ranges.  
This is an additional option available for ZL/ILW/CL/SL/SR ranges (except CL/SL 15, 32).  
**Order number: OWW/OWW LED** (factory fitted).  
Interior lighting features 1 light point. The user switches it on with enter button located in the front panel.  
This option does not allow day/night simulation (see FIT and FOT options). Max working temperature of the unit is reduced to +70°C, for SL/SR ranges to +250°C and for ZL-T range to -35°C.

### Wire shelf

This is standard equipment in ST/CHL B(basic) models.

**Order number: \*/P.**

Wire shelf is made of steel and covered with plastic. It is provided with slides.



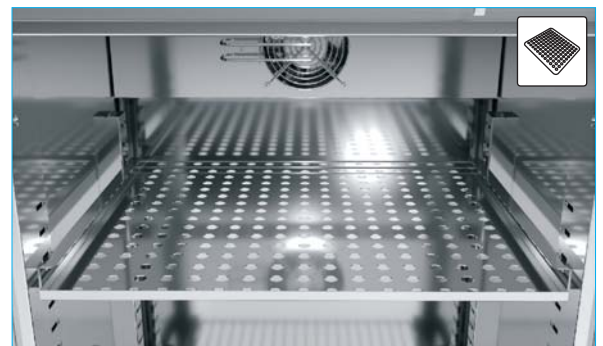
### Perforated shelf

This is standard equipment in ZLW-T models.

This is an additional option available for ST/CHL/ZL/CL/IL/SL/SR/KK ranges.

**Order number: \*/PP.**

Perforated shelf is made of stainless to DIN 1.4301 steel and provided with slides. Different depths of the shelf on request.



### Full shelf with hole

This is standard equipment in ZLN-T models.

**Order number: \*/PO.**

Shelf is made of stainless steel and provided with slides.



### Stainless steel wire shelf (INOX)

This is standard equipment in CL/IL/SL/SR/KK ranges, ZLN 85 model and in ST/CHL C (comfort) and P (premium) models.

**Order number: \*/P INOX.**

INOX wire shelf is made of stainless steel to DIN 1.4301 and provided with slides.



### Reinforced shelf

This is standard equipment in CL/IL/SL/SR/KK 750 and 1000 models and all CL/ILW/SL models in the reinforced version

**(order number: \*/W).**

This is an additional option available for CL/ILW/SL/SR/ST/CHL/KK ranges and ZL-T models.

**Order number: \*/PW.**

Reinforced shelf can be wire, perforated or with a whole.

It is provided with slides.

Maximum shelf workloads and maximum unit workloads can be found in tables with parameters for certain product ranges.





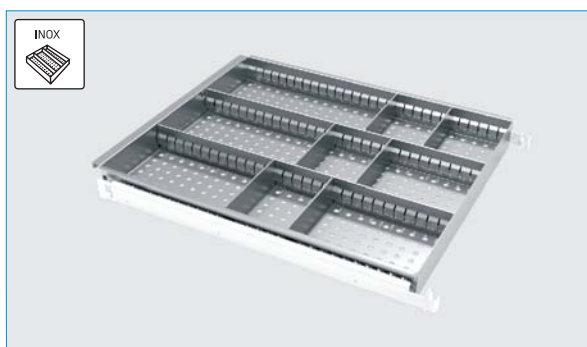
### Reinforced version

This is a standard feature of CL/SL/SR 1000 models. This is an additional option available for CL/ILW/SL ranges and ZL-T 125, 200, 300 models. **Order number: \*/W** (factory fitted). Reinforced version of products allows to store heavy loads in chamber. It consists of reinforced construction of the chamber and reinforced shelves. In this way we prevent damage to the unit caused by heavy loads. Maximum shelf workloads and maximum unit workloads can be found in the tables with parameters for certain product ranges. When a unit in reinforced version is purchased, the reinforced shelves are supplied instead of standard shelves.



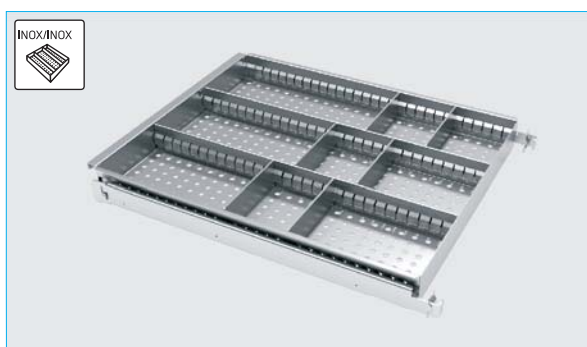
### Aluminum drawer with powder coated slides

This is an additional option available for ST/CHL ranges. **Order number: ST/CHL SWP ALU.** The drawer is aluminum, 6 cm deep, provided with a pull out powder coated slides set, with 2 compartments longways + 2 across in each section.



### Stainless steel drawer with powder coated slides

This is an additional option available for ST/CHL ranges. **Order number: ST/CHL SWP INOX.** The drawer is stainless steel, 6 cm deep, provided with pull out powder coated slides set, with 2 compartments longways + 2 across in each section.



### Stainless steel drawer with stainless steel slides

This is an additional option available for ST/CHL ranges. **Order number: ST/CHL SWPN INOX.** The drawer is stainless steel, 6 cm deep, provided with pull out stainless steel slides set, with 2 compartments longways + 2 across in each section.



### Pharma organizer

This is an additional option for ST/CHL 2/3/4/5/6. Consists of 4 drawers. **Order number: ORG-FARM.**

## Stainless steel cuvettes

This is an additional option available for all products ranges.

**Order number: KUW.GN \*/\***

Stainless steel cuvettes can be placed on the shelves.

Different sizes available.



## Photoperiodic system

This is an additional option for ST and ILW in Smart version

**Order number: \*/FOT** (factory fitted).

Photoperiodic system allows day and night simulation.

See page 44 for more details.



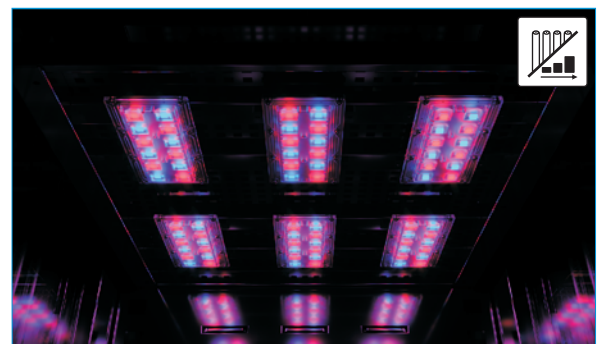
## Phytotron system

This is an additional option for the KK range, ILW Smart PRO version and ST 500-1450 Smart PRO models.

**Order number: \*/FIT** (factory fitted).

Phytotron system allows day and night simulation with smooth illumination control (each 1%).

See pages 45/ 68-69 for more details.



## Additional Pt 100 temperature sensor

This is an additional option available only for SMART PRO version units (except for KK/KKS and units equipped with automatic defrosting function -PLUS or FOT/FIT option).

**Order number: Pt 100** (factory fitted).

This option consists of an additional temperature sensor and a sensor's socket. The additional temperature values can be shown in the display. The user can set the main and additional sensor. This way unit can work according to the sample temperature in which additional Pt 100 sensor is placed.

The sensor may be supplied with a calibration certificate.



## Castors

This is a standard equipment in ST/CHL 1200, 1450, CL/IL/SL/SR 400, 750, 1000, ILW 240 and KK/ZL-T, ZLN-UT ranges.

This is an additional option available for all product ranges.

**Order number: QLK\***(factory fitted).

Large size units have been equipped with castors as standard to facilitate transport. For other units castors can be fitted on request.





### Container for deionized water

This is standard equipment in KK range (except KKS). This is an additional option available for KK range.

**Order number: KK/Z.**

This plastic container is for deionized water which is indispensable for a proper KK performance.

The container is not necessary in case the chamber is plugged directly to a deionizer.



### Chart recorder

This is an additional option available for ST/CHL 500, 700, 1200, 1450 models.

**Order number: \*/RK** (factory fitted).

The built-in chart recorder with constant temperature registration is equipped with a battery back-up, therefore it keeps temperature registration even in case of power shortage. It comes with 100 pieces of registration papers as a start kit.

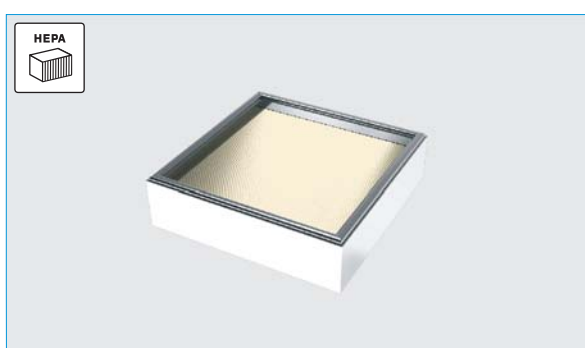


### Magnetic door lock

This is an additional option available for ST/CHL 500, 700, 1200, 1450 models.

**Order number: \*/ZKM** (factory fitted).

The magnetic door lock comes with the set of access cards – 5 pcs. RFID card reader enables quick access to the chamber (the reader must be touched with the card in order to open the door). The access is reserved only for authorized users (card holders).



### HEPA-fresh air filter

This is an additional option available for CL/SL/SR ranges.

**Order number: HEPA** (factory fitted).

HEPA filter is installed at the air inlet to the chamber



### Table on castors

This is an additional option available for ST/CHL 1-3, ZLN 85, CL/SL 15, 32, CL/IL/SL/SR 53-240 models.

**Order number: \*/S** (powder painted) or **\*/S INOX** (stainless steel).

Table with castors provides you with the highest comfort of using our products. We offer a wide range of tables equipped with castors. Different sizes of the tables are available on request.

The user can choose the most suitable height.





### FIT panels independent control

This is an additional option available for the units equipped with FIT option – at least two (2) over-shelf illumination panels. Possibility of independent over-shelf lighting control.

**Order number: FIT/R3** (factory fitted).

It allows to control the light intensity independently for each of 2 or 3 over-shelf panels (e.g. the light intensity above one of the shelves can be set to 100%, and above the other to 50%).



### Extended temperature range ST/70

This is a standard feature of ST Smart Pro models. This is an additional option available for ST models with solid door.

**Order number: ST/70** (factory fitted).

This is an extended temperature range up to +70°C (standard temperature range in ST models is +3°C...+40°C).



### Calibration of the chamber

This is an additional option available for all product ranges. **Order numbers: BRT/9/L, BRT/1P/L, BRT/2P/L, IQ, OQ, PQ.** Measurements are performed at 9 points of the chamber (corners + geometric center) or at 5 points on the shelf (corners + geometric center) at the temperature selected by the user. Moreover, IQ, OQ, PQ complete qualification procedure are available for each unit (see page 117).



### Low temperature version

This is an additional option available for ILW range.

**Order number: \*T** (factory fitted).

It extends temperature range down to -10°C (standard temperature range starts from 0°C).



### Non-standard access port

This is an additional option available for all product ranges. **Order number: OCZ/20, OCZ/30, OCZ/60, OCZ/100** (factory fitted). The orifice is made in addition to the standard access port. Available diameters: 20 mm, 30 mm, 60 mm, 100 mm. The diameter of the orifice and its location must be agreed with the manufacturer before placing an order.



### Alarm port – signaling (NC-NO)

This is an additional option available for all product ranges (except SL SIMPLE and CALDERA).

**Order number: PORT ALARM** (factory fitted)

Potential-free alarm contacts are intended to inform the user about the unit's state. They can be connected to external monitoring with digital/binary input. The alarm port is a relay-type output with NC-NO contacts. The contacts are switched when there is a power outage or an alarm occurs. Circuit close (COM-NO): unit is on and works properly. Circuit open (COM-NO): unit is off or some malfunctions occurred.



### Automatic defrosting function

This is a standard feature for KK and ST/ILW models with FOT and FIT illumination. This is an additional option available for ST/CHL/ILW models.

**Order number: \* PLUS** (factory fitted).

The automatic defrosting function is performed while the unit is running. Used technology causes only a slight increase in temperature in the chamber (slight peak). Default settings - 2 minutes defrosting every 2 hours, causes a temporary increase in temperature in the chamber by approx. 3°C. Defrosting parameters can be changed by the User depending on the application - test type (wet / dry), door opening frequency, etc.



### CO<sub>2</sub> back up system

This is an additional option available for ZLN-UT range.

**Order number: ZLN-UT/CO2** (factory fitted).

Enables the freezer controller to dose CO<sub>2</sub> in case of undesired temperature increase in the chamber. It is supplied with an internal battery. This solution is particularly recommended in the event of a power outage.



### ZLN-UT/ST rack with drawers

This is an additional option available for ZLN-UT range.

**Order numbers: ZLN-UT/ST12, ZLN-UT/ST16**

Sturdy and heavy duty, made of stainless steel; feature quick and easy access to all boxes; 3 or 4 drawers (each for 4 boxes) per rack.



### Boxes

This is an additional option available for ZLN-UT range.

**Order number: ZLN-UT/STP12 ZLN-UT/STP16**

Boxes set (12 or 16) made of polypropylene (dimensions 133x133x50mm; each box suits 81 test-tubes of Ø 12,5mm) or made of cardboard.



### Display battery backup 12h

This is a standard feature for ZLN-UT range.

This is an additional option available for all product ranges (except SL SIMPLE and CALDERA).

**Order number: BPP 12** (factory fitted).

Battery backup for display up to 12 h (only data registration, no parameters control)



### Low water level sensor

This is an additional option available for KK range (except KKS).

**Order number: KK/CP** (factory fitted).

An alarm goes off when the water level is low.

## Defrosting function

This is a standard feature for CHL models without automatic defrosting function. Defrosting is performed automatically but it has to be launched manually by the user at the most suitable time (e.g. when there are no samples in the chamber). Defrosting involves temporary heating inside the chamber by approx. 20-30°C. Therefore it can't be implemented during its operation (to not disturb temperature fluctuation).

## Over/under temperature (and humidity in KK/KKS) alarm

In the menu, you can set the permissible value of exceeding the set temperature (and humidity in KK/KKS). If the temperature or humidity in the chamber rises beyond the acceptable limit, an audible alarm will sound and the ALARM icon will appear on the display.

## Temperature (and humidity in KK/KKS) sensor fail alarm

When the temperature (and/or humidity in KK/KKS) sensor does not work properly, the display shows information about the error.

## E-mail reports

This is a standard feature of all units in Smart PRO version. This feature involves sending e-mail messages (up to 3 addresses) in the event of alarms, events in the program or events related to editing users. The function can be configured according to individual requirements. The condition for sending the message is connection to the Ethernet network.

## Ethernet connection and remote control via Internet

This is a standard feature for Smart and Smart PRO models. Each unit can be connected to the Ethernet network or directly to the computer with a LAN cable (optional for Smart and standard for Smart PRO). LabDesk software (optional for Smart and standard for Smart PRO) is needed to read data (saved data and event log). With this feature, equipment can be controlled and monitored via Internet. It is also possible to connect several units at the same time and control them from one computer.

## Measurement data memory

All the units (except SL SIMPLE) are equipped with the measurement data memory function as standard. It allows you to store 10,000 measurement results which are stored in the memory of Smart units for 6 months, and in Smart PRO for 12 months. You can download them to USB flash drive or transfer them to your computer at any time. The data can be opened in LabDesk or MS Excel.

## Standard access port for external sensor

All the units are equipped with a standard access port. It is placed in the left side of the chamber (in case of SL SIMPLE – in the right). Access port which has been secured with a silicone plug can be used to insert an external temperature sensor.

## Open door alarm

All units (except SL SIMPLE) are equipped with an open door alarm. Upon opening the door the alarm goes off (sound alarm and message appears on the display) according to the set by the user alarm delay.

## Wi-Fi communication

Equipment with Smart PRO controllers are equipped with a Wi-Fi communication module. It enables wireless communication and data transfer to LabDesk software.

## Door lock

All the units (except SL SIMPLE) are equipped with the door lock.

## Parameters priority

Equipment which features parameters priority works according to the following rule: the unit achieves set parameter first (temperature, humidity) and then starts time countdown. In this case the set parameter is important.

## Time priority

Equipment operating with time priority operates according to the following principle: the unit simultaneously starts counting the time and the process of achieving the set parameters. Time is the main parameter in this case.

## Power failure control

A temporary power failure during program operation would be unnoticeable to the user, as the program continues after power is restored. Therefore, if a power failure occurs while a program is running, a message appears in the display. The information also appears in the event log.

## Administrator function

This is a standard feature for all devices in Smart PRO version. It allows to manage user accounts and supports GLP.

## Schedules

It's possible to schedule programs for all units in Smart PRO version. This feature allows you to create a list of programs to be run at the set time. Several different schedules can be created.

## USB port

All the units (except SL SIMPLE and CALDERA) are equipped with a USB port. It's used to transfer data from the internal memory of the unit to the flash memory. The data saved in the \*.csv file can be opened in Notepad. Data saved as \*.plx can be opened in LabDesk.

## Audible alarm

This function activates an audible alarm at a time specified by the user.

## Temperature (and humidity in KK/KKS) calibration

Each equipment is calibrated by the manufacturer in accordance with applicable standards. The temperature displayed corresponds with high accuracy to the temperature in the geometric center of the chamber. User calibration is not necessary for the correct operation of the unit. However, the user has the option of calibrating the chamber (Smart and Smart PRO) on his own responsibility and must be aware of the consequences of changing the factory parameters of the equipment. If the unit has been calibrated, the calibration certificate becomes invalid after the new correction is made.

## Fan speed control

This is a standard feature for SL/CL/ILW/KK Smart, Smart PRO and ST/CHL 1-6 Smart PRO. It allows you to control the fan speed in the range 0/10/50 ... 100% (depending on the model). Different fan speed can be set for each program separately.