



Environmental laboratory equipment  
with **superior quality & reliability.**

## Termaks Product Range

Laboratory Drying Ovens

Laboratory Incubators

Cooling Incubators

Environmental Chambers







Creates the environment you **need.**





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# **TS-Series**

## Designed for excellent temperature distribution

Termaks forced convection drying and heating chambers – the TS-Series is the perfect match for all kind of applications, which are related to fast drying and sterilization processes.

With variable fan settings all instruments are designed for excellent temperature distribution.

The entire TS-Series features a very high temperature stability throughout the complete control range, from x up to +250°C and the newly developed, state of the art control system allows reliable fine tuning at any temperature in that range. The control system is designed to comply with EN61010 and has been EMC-tested in accordance with EN 60730-1 and EN 60730-2-14.

The possibility, to control the Termaks cabinets, using CTS, a PC or via Gateway is one of many extra features, which our R&D Team added for you. It is also possible, to log data from the instruments and we provide the software, which you need, to store it on your PC.

To make sure, that your Termaks instruments will always be at the cutting edge of technology, all PCBs feature a SD-card slot, which can be used for future software updates as well as to upload new setpoint files.

With Termaks RMS (Redundant Monitoring System), which double checks the temperature sensor in real time, we make sure, that a single error can't cause any malfunction. The TS-Series can also be equipped with an H14 HEPA filter for clean air inside the chamber. In order to make best use of the valuable space in your laboratory, Termaks instruments are designed with very small external dimensions in relation to their interior volumes. In addition to that, all instruments are stackable and stacking kits are available as an option.



## Highest level of safety – easiest to operate

The automatic safety thermostat does not only simplify the operation, it also provides a higher level of safety. The Termaks TS-Series is equipped with an OLED display, which is protected by a PIN-code from unauthorised access.

The TS-series is also available in a version with H14 HEPA filtration on inlet air inner. Making the best use of valuable space in your lab, Termaks incubators are designed with a very small footprint ratio compared to the interior volume. In addition, they are stackable with an optional stacking kit.

## State of the art heating

With an intuitive and easy to use control panel, Termaks TS-Series offers real time programming for a precise and stable performance. In addition to that, the air exchange rates and air valve positions are electronically adjustable and the instruments offer several temperature ramps, which can be chosen and programmed via the touch display or your computer. With state of the art heating technology, safety thermostats and redundant safety checks the Termaks TS-Series features a precise and homogenous temperature control which is highly reliable and which offers maximum protection.

# State of the art heating



## Highlights

- ✓ Temperature range up to +250°C
- ✓ Automatic and programmable electrical Air valve
- ✓ Forced air circulation
- ✓ Safety thermostats and redundant system for maximum protection
- ✓ Data logging and Remote support via Connect
- ✓ 4 model sizes (26 to 430 litres volume)
- ✓ Stackable TS9026/9053/9135, optional stacking kit
- ✓ Electrical controllable air valve
- ✓ Castors, lockable for increased mobility (TS9430)
- ✓ Access ports for data logging with external sensors (optional)

## Specifications

Temperature Control	TS 9026	TS 9053	TS 9135	TS 9430
Variation + / - °C	1	1	1	1
Deviation (spatial) + / - %	1,5	1,5	1,5	1,5
Readability / Setability °C	1	1	1	1
Range °C	tb-250	tb-250	tb-250	tb-250
Sensor "K"	Yes	Yes	Yes	Yes
Controller	PID	PID	PID	PID
Display	OLED	OLED	OLED	OLED
<b>TIMER</b>				
Standard hours / minutes	99h / 59m	99h / 59m	99h / 59m	99h / 59m
Real time program *	Yes	Yes	Yes	Yes
<b>SAFETY</b>				
Alarm flashing / Acoustic	Yes	Yes	Yes	Yes
Alarm limit settable °C	Yes	Yes	Yes	Yes
Automatic safety setting °C	Yes	Yes	Yes	Yes
<b>FEATURES</b>				
Fan speed steps	10-100%	10-100%	10-100%	10-100%
Exhaust valve	0-100%	0-100%	0-100%	0-100%
Exhaust valve, mm	30x30	30x30	30x30	60x60
Door gasket silicone	Yes	Yes	Yes	Yes
Data port, MODBUS	Yes	Yes	Yes	Yes
Pot free alarm, output	Yes	Yes	Yes	Yes
<b>SHELVES</b>				
Standard / Max pcs	2 / 7	2 / 8	3 / 16	3 / 23
Dimensions W x D mm	346 x 235	434 x 325	534 x 325	602 x 570
Max load pr shelf kg	20	20	20	30
Permitted total load kg	50	50	70	100
<b>HEATING</b>				
Heating up time to 250°C mins	40	50	65	20
Heat transfer at 250°C W	400	460	710	1500
<b>POWER</b>				
Nominal Power W	930	1430	1430	4600
Nominal voltage V	230	230	230	400
Frequency Hz	50 / 60	50 / 60	50 / 60	50 / 60
<b>DIMENSIONS</b>				
Exterior W x D x H mm	490 x 480 x 500	580 x 575 x 550	680 x 675 x 750	753 x 845 x 1360
Interior W x D x H mm	350 x 255 x 300	440 x 345 x 350	540 x 455 x 555	610 x 600 x 1180
Volume litres	26	53	135	430
<b>WEIGHTS / VOLUME</b>				
Net weight kg	20	34	51	120
Shipping weight kg	25	40	60	140
Shipping volume dm3	210	350	558	1280



## B-Series

### Termaks incubators B-series are highly reliable and very accurate

While Termaks B-Series Incubators are in many cases used to incubate living cultures at +37°C, they are also the best choice for all applications, which require temperatures of up to +80°C.

Their state of the art control system allows accurate fine tuning at any temperature in the range.

The B-Series control system was designed and EMC-tested in accordance with EN61010, EN 60730-1 and EN 60730-2-14. As an additional feature the Termaks Cabinets can be controlled via CTS, PC or Gateway. It is possible to log data from the Cabinets, which can then be transferred and saved to your computer or laptop, using a logger program. A SD-card slot allows software updates on the PCB and other future improvements at any time and it can also be used to upload additional setpoint files.

All Termaks Cabinets feature a redundant system that monitors the temperature sensor and makes sure that a single fault can't cause any malfunction. The B-Series is also available without an inner glass door for hospital applications such as warming textiles and infusion liquids.

Making the best use of valuable space in your Laboratory, Termaks incubators are designed with a very small footprint ratio compared to the interior volume. Last but not least, they are stackable with an optional stacking kit.



#### Electronically controllable

The Termaks B-Series offers best in class performance with an intuitive and easy-to-use control panel for real time programming. The air exchange rates and air valve positions are electronically controllable. Temperature ramps are programmable via the display or via Connect. The inner chamber of all devices is made of stainless steel in order to provide the best quality, corrosion-resistance as well as easy cleaning.

With a state of the art heating system, the Termaks B-Series offers a very precise and homogenous temperature control. The redundant system is equipped with safety thermostats for maximum protection and reliability.

#### Simpler and safer operation

The automatic safety thermostat doesn't just simplify the operation, it also provides greater safety. An OLED display and touch buttons, assure an extended lifetime of the B-Series in humid environments.

The Incubators allow operation from 2°C above ambient temperature and with software alternates between two temperatures at specified time, daily or weekly. To prevent undesirable settings, the Termaks B-Series is equipped with a keypad and PIN code.

# Simpler and safer operation



## Highlights

- ✓ Temperature range up to +80 °C
- ✓ Stackable B9025/9051/9130, optional stacking kit
- ✓ 2 model variants: with or without inner glass door
- ✓ Decontamination process
- ✓ Access ports for for data logging with external sensors (optional)
- ✓ Forced air circulation
- ✓ 4 model sizes (25 to 420 litres volume)
- ✓ Safety thermostats and redundant system for maximum protection
- ✓ Double doors (interior glass for overview without drop in temperature)
- ✓ Variable fan speed
- ✓ Activation of sterilization routine via display or Connect
- ✓ Castors, lockable for increased mobility (B9420)

## Specifications

Temperature Control	B 9025	B 9051	B 9130	B 9420
Variation + / - °C	0,2	0,2	0,2	0,2
Deviation (spatial) + / - %	1	1	1,5	1,5
Readability / Setability °C	0,1/0,1	0,1/0,1	0,1/0,1	0,1/0,1
Range °C	tb-80,0	tb-80,0	tb-80,0	tb-80,0
Sensor "K"	Yes	Yes	Yes	Yes
Controller	PID	PID	PID	PID
Display	OLED	OLED	OLED	OLED
<b>TIMER</b>				
Standard hours / minutes	99h / 59m	99h / 59m	99h / 59m	99h / 59m
Real time program *	Yes	Yes	Yes	Yes
<b>SAFETY</b>				
Alarm flashing / Acoustic	Yes	Yes	Yes	Yes
Alarm limit settable °C	Yes	Yes	Yes	Yes
Automatic safety setting °C	Yes	Yes	Yes	Yes
<b>FEATURES</b>				
Fan speed steps	1 / 10	1 / 10	1 / 10	1 / 10
Door gasket silicone	Yes	Yes	Yes	Yes
Glass innerdoor	Yes	Yes	Yes	Yes
Data port, MODBUS	Yes	Yes	Yes	Yes
Pot free alarm, output	Yes	Yes	Yes	Yes
<b>SHELVES</b>				
Standard / Max pcs	2 / 7	2 / 8	3 / 16	3 / 23
Dimensions W x D mm	346 x 235	434 x 325	534 x 325	602 x 570
Max load pr shelf kg	20	20	20	30
Permitted total load kg	50	50	70	100
<b>HEATING</b>				
Heating up time to 37 °C mins	27	30	33	30
Heat transfer at 70 °C W	65	75	90	190
<b>POWER</b>				
Nominal Power W	480	480	930	1430
Nominal voltage V	230,1~	230,1~	230,1~	230,1~
Frequency Hz	50/60	50/60	50/60	50/60
<b>DIMENSIONS</b>				
Exterior W x D x H mm	490 x 480 x 500	580 x 575 x 550	680 x 675 x 750	753 x 845 x 1360
Interior W x D x H mm	350 x 255 x 300	440 x 345 x 350	540 x 455 x 555	610 x 600 x 1180
Volume litres	25	51	130	420
<b>WEIGHTS / VOLUME</b>				
Net weight kg	20	35	52	120
Shipping weight kg	25	40	60	140
Shipping volume dm3	210	350	558	1280



## KB-Series

### Cooling incubators that offers great performance and best temperature stability

The Termaks KB-Series of compressor cooled Incubators is ideal for incubating, breeding, storing and drying applications in a temperature range from  $-9,9^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ .

The newly developed control system allows very accurate parameter settings at any temperature in the range. The control system was designed and EMC-tested in accordance with EN61010, EN 60730-1 and EN 60730-2-14.

The KB-Series is easy to use yet allowing extensive programmability and numerous ramping options. The intelligent design provides real time and most precise temperature control, fast recovery and defrosting. Extra features have been built in, so it is now possible to control the Termaks Cabinets through CTS, PC or Gateway. It is possible to log data from the Cabinets and store these on a PC with a logger program. For future improvements, it is possible to update the software on the PCB, through the SD-card slot and it is also possible to upload new setpoint files this way.

All Termaks Cabinets have a redundant system that monitors the temperature sensor and makes sure that a single fault can't cause a malfunction. The KB series offers outstanding performance with great energy efficiency and environmental friendliness. The cooled incubators are state-of-the-art in application and protect the samples. Making the best use of valuable space in your lab, Termaks incubators are designed with a very small footprint ratio compared to the interior volume. In addition, they are stackable with an optional stacking kit.

#### Fast and accurate temperature control

KB series is easy to use yet allowing extensive programmability and numerous ramping options. The intelligent design provides rapid and precise temperature control, fast recovery and defrosting. Air circulation in the working chamber via Termaks sophisticated ventilation technology, with variable fan speed.

The Termaks KB-Series offers a high-quality, corrosion-resistant chamber, made of stainless steel for easy cleaning. It is equipped with an OLED display and touch buttons for extended lifetime and intuitive operation. The integrated keypad with PIN code prevents undesirable settings.

#### Real time programming

With an intuitive and easy-to-use control panel, the Termaks KB-Series offers real time programming for a precise and stable performance. Furthermore, the air exchange rates and air valve positions are electronically controllable. Temperature ramps are programmable via the display or Connect.

The KB-Series state of the art cooling process provides the most accurate and homogenous temperature control for the highest level of reliability. It is also equipped with safety thermostats and a redundant system for maximum protection.



# Real time programming

## Highlights

- ✓ Temperature range -9,9°C to +70°C
- ✓ 2 model sizes (182 and 400 litres volume)
- ✓ Forced air circulation
- ✓ Safety thermostats and redundant system for maximum protection
- ✓ Data logging and Remote support via Connect
- ✓ Triple glass front window with cover (optional)
- ✓ Castors, lockable for increased mobility
- ✓ Glass inner door with gasket (optional)
- ✓ OLED display with touch buttons results in extended lifetime and a simpler operation
- ✓ Access ports for data logging with external sensors (optional)



## Specifications

Temperature Control	KB 9182	KB 9400
Variation + / - °C	0,1	0,1
Deviation (spatial) + / - %	0,2	0,2
Readability / Setability °C	0,1	0,1
Range °C	-9,9°C + 70°C	-9,9°C + 70°C
Sensor "K"	Yes	Yes
Controller	PID	PID
Display	OLED	OLED

### TIMER

Standard hours / minutes	0-999 m	0-999 m
Real time program	Yes	Yes

### SAFETY

Alarm flashing / Acoustic	Yes	Yes
Alarm limit settable °C	Yes	Yes
Automatic safety setting °C		Yes

### FEATURES

Fan speed steps	1 / 10	1 / 10
Door gasket silicone	Yes	Yes
Data port, MODBUS	Yes	Yes
Pot free alarm, output	Yes	Yes

### SHELVES

Standard / Max pcs	3 / 14	3 / 22
Dimensions W x D mm	500 x 450	610 x 580
Max load pr shelf kg	20	30
Permitted total load kg	80	120

### POWER

Maximum Power W	950	950
Nominal voltage V	230	230
Frequency Hz	50 / 60	50 / 60

### DIMENSIONS

Exterior W x D x H mm	680 x 580 x 1430	830 x 720 x 1840
Interior W x D x H mm	520 x 451 x 777	630 x 592 x 1073
Volume litres	182	400

### WEIGHTS / VOLUME

Net weight kg	95	180
Shipping weight kg	120	210
Shipping volume dm3	865	1575

# Climate Chambers

## Powerful and optimally coordinated heating and cooling technology

Termaks chambers provide an ideal solution for environmental, stability and climate applications. The new developed and refined range offers high reliability and repeatable performance without compromise. Powerful and optimally coordinated heating and cooling technology offers best in class performance, energy efficiency and low noise levels. Termaks climate chambers are the best choice, to meet the high demands of our Customers in the pharmaceutical, biotech, and industrial field.

The refrigeration system is On Demand and only turns on when needed, reducing heat load and allowing units to run on standard single electrical circuits. KB 9400F has a heatless humidification system that further reduces heat load and energy consumption. Lockable casters are standard and leveling feet as well as access ports are optional.

The Termaks range of climate chambers does also offer many customization possibilities according to your individual requirements and applications. Intuitive operation with an easy to use touchscreen display makes all parameters highly visible. As an additional feature, included in all units, it is possible to control the Termaks cabinets through CTS, PC or Gateway.

Data logging and full remote support via Connect allows you to control and program the system from wherever you want. You can also store data, event logs and much more remotely.





# With reliability in focus



## Highlights

- ✓ Temperature range -2°C to +70°C
- ✓ Dependable temperature and humidity performance, even at high and low ends of the range.
- ✓ Validatable performance
- ✓ Data logging and remote support via Connect
- ✓ Access ports for data logging with external sensors (optional)
- ✓ Castors, lockable for increased mobility
- ✓ Glass inner door with gasket (optional)
- ✓ Safety thermostats and redundant system for maximum protection
- ✓ Forced air circulation and air jacket
- ✓ Triple glass front window with cover (optional)
- ✓ Touch display with explanatory text - simpler to operate
- ✓ Light system, dual side (optional)

## With reliability in focus

The Termaks series of climate chambers is easy to install, even for facilities without purified feed water supply or nearby drain. Different water feed and drain options are available.

The control system is designed and EMC-tested in accordance with EN61010, EN 60730-1 and EN 60730-2-14. All Termaks cabinets feature a redundant system that monitors all sensors and makes sure that a single fault can't cause a malfunction.

Making the best use of valuable space in your lab, Termaks devices have been designed with a very small footprint ratio compared to their interior volume.

## Constantly controlled

The state of the art refrigeration and dehumidification system offers outstanding capacity and reliability. It is constantly controlled via electronic valves, which redirect heat and cold upon system request, allowing fast adjustments according to your settings.

Due to the system design, the working range is far superior in its standard configuration – it provides an excellent RH recovery and temperature stability in its full range. The humidification system offers high capacity and user friendliness without any requirements of regular maintenance.

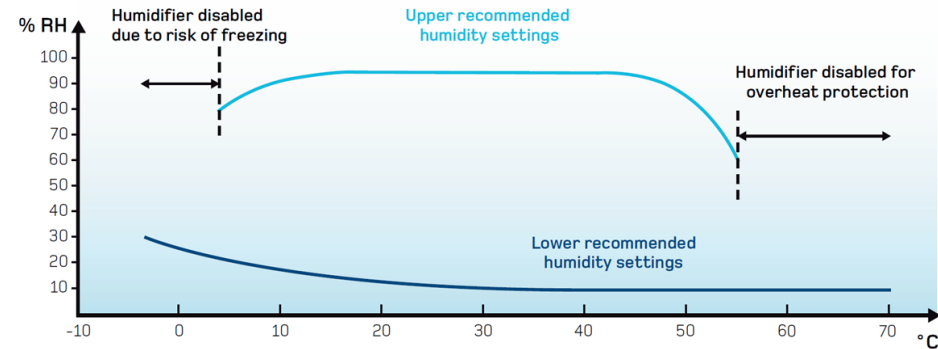
The system comes with built in autotest and a self-cleaning feature in order to avoid unintentional growth. Furthermore, it offers automatic feed water supply and leakage management.

# Climate Chambers

## Light, Temperature and humidity

The KB 9400 series offers an optional light system for Day / Night simulations. The high performance light sources are placed on each side of the cabinet, in order to maximize usable chamber space.

The system allows up to maximum 25 000 Lux in sides, 12 000 Lux average in center and is fully programmable with ramping options.



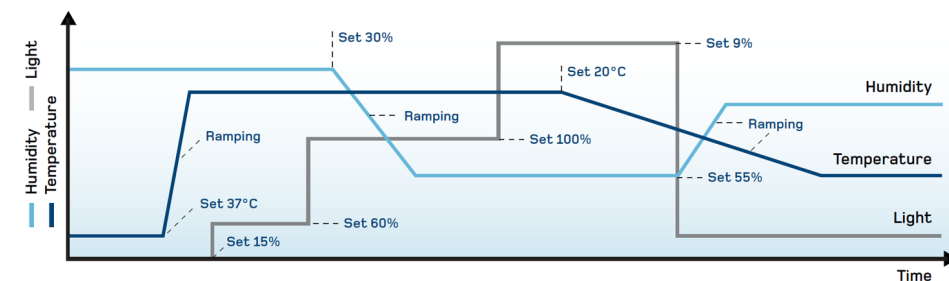
## Optimization and validation

Termaks offers factory optimizations and validation according to specific protocols and demands.



## Advantages

- ✓ Precise performance
- ✓ Real time programming
- ✓ Intuitive and easy-to-use control panel
- ✓ Temperature, Humidity and Light ramps programmable via display or Connect
- ✓ High-quality, corrosion-resistant and chamber in stainless steel for easy cleaning
- ✓ State of the art cooling for a precise and homogenous temperature control
- ✓ Safety thermostats and redundant system for maximum protection





## Specifications

TEMPERATURE CONTROL	KB 9400 L	KB 9400 F	KB 9400 FL
Variation + / - °C	0,1	0,1	0,1
Deviation (spatial) + / - %	0,2	0,2	0,2
Readability / Setability °C	0,1	0,1	0,1
Range °C	-2°C + 70°C	-2°C + 70°C	-2°C + 70°C
Sensor "K"	Yes	Yes	Yes
Controller	PID	PID	PID
Display	OLED	OLED	OLED

### TIMER

Real time program	Yes	Yes	99h / 59m
Remote support via Connect	Optional	Optional	Yes

### HUMIDITY CONTROL

Humidity variation (time) + / - %RH	-	2	2
Humidity deviation (spatial) + / - %RH	-	2	2
Readability %RH	-	0,1	0,1
Setability %RH	-	1	1
Range setting %RH	-	1-99	1-99
Working range %RH	-	15-96*	15-96*
Capasative sensor	-	Yes	Yes
Controller	-	PID	PID
Water quality	-	Demineralized	Demineralized
Water feed pressure Bar	-	1-6	1-6
Water reservoir (optional) litres	-	5	5

### LIGHT CONTROL

Light readability / setability %	3-100**	-	3-100**
Light intensity in centre Lux	12000	-	12000
Light intensity both sides Lux	25000	-	25000

### FEATURES

Door gasket silicone	Yes	Yes	Yes
Data port, MODBUS	Yes	Yes	Yes
Pot free alarm, output	Yes	Yes	Yes

### SHELVES

Standard / Max pcs	3 / 22	3 / 22	3 / 22
Dimensions W x D mm	610 x 580	610 x 580	610 x 580
Max load pr shelf kg	30	30	30
Permitted total load kg	120	120	120

POWER	KB 9400 L	KB 9400 F	KB 9400 FL
Maximum Power W	1200	1200	1200
Nominal voltage V	230	230	230
Frequency Hz	50 / 60	50 / 60	50 / 60

### DIMENSIONS

Exterior W x D x H mm	920x720x1840	830x720x1840	920x720x1840
Interior W x D x H mm	630x592x1073	630x592x1073	630x592x1073
Volume litres	400	400	400

### WEIGHTS / VOLUME

Net weight kg	210	230	240
Shipping weight kg	235	255	275
Shipping dimensions	1060x830x2040	930x840x2040	1060x830x2040
Shipping volume dm3	1795	1575	1795

\*Humidifier disabled below +4°C and above +55°C

\*\*Temperature settings are prioritized at low temperatures (factory setting)



# Accessories

We offer a wide range of accessories and customizations according to your needs. Below is just some examples of the standard accessories and options.

Accessories	Art. No.
NEW Remote support and logging kit, new TS/B and KB series	41120001000
Wire shelves incl holders 9025/9026	41120040055
Wire shelves incl holders 9051/9053	41120040056
Wire shelves incl holders 9130/9135	41120040057
Wire shelves incl holders 9420/9430	41120040058
Shelves in stainless steel incl holders 9025/9026	41120002526
Shelves in stainless steel incl holders 9051/9053	41120005153
Shelves in stainless steel incl holders 9130/9135	41120003035
Shelves in stainless steel incl holders 9420/9430	41120002030
Shelves in stainless steel incl holders KB9182/8182	41120009182
Shelves in stainless steel incl holders KB9400/8400	41120009400
Holder for shelves 9025/9026, 2 pcs	41121040055
Holder for shelves 9051/9053, 2 pcs	41121040056
Holder for shelves 9130/9135, 2 pcs	41121040057
Holder for shelves 9420/9430, 2 pcs	41121040058
Holder for shelves KB9182/8182, 2 pcs	41121049812
Holder for shelves KB9400/8400, 2 pcs	41121049400

## Options, factory fitted

Options, factory fitted	Art. No
Access port all models, standard left side 32 mm (AISI 304)	41120100010
Access port all models, standard left side 50 mm (AISI 304)	41120100011
Access port all models, standard left side 100 mm (AISI 304)	41120100012
Door Lock KB series	41120100020
Internal lamp w/switch TS9135/TS9430	41120100030
Triple glass window TS9135	41121000135
Triple glass window TS9430	41121000430
Triple glass window w/cover KB9182	41121008182
Triple glass window w/cover KB9400 all models	41121008400
Internal power outlet B and KB series, 230V Schuko type	41122001010
Internal power outlet B and KB series, 230V Swiss type	41122001020
Internal power outlet B and KB series, 230V Danish type	41122001030
Internal power outlet B and KB series, 230V French type	41122001040
Internal power outlet B and KB series, 230V UK type	41122001050
Drain pump for KB9400 F models	41131001010
DI Water purification filter for KB9400 F models	41131002100
DI Water reservoir 5 litres for KB9400 F models	41131002200
LED light source for KB9400 L models	41133001000
IQ/OQ Validations package	41130000999
Material certificate on stainless steel	41130001100
Surface finish certificate for stainless steel	41130002100





### **Termaks - a part of Nordic Labtech.**

Termaks AS can look back on more than 60 years of activity and experience. The company was founded in 1952 and in the beginning it exclusively supplied the Norwegian market with its laboratory equipment. Eventually Termaks AS became a leading supplier of drying ovens, sterilizers and incubators for the entire Scandinavian market.

In 2019, Nordic Labtech acquired Termaks A/S, and all Termaks products. Nordic Labtech is a well established company within the Life Science and Laboratory sector, which started in 2013 by developing customized laminar airflow solutions for pharmaceutical and animal research facilities.

From its base in Kungsbacka, on the Swedish west coast, the company's presence in the market has increased significantly. Today we export our products to almost all countries in Europe and Asia. Approximately 80% of our business is export. Termaks products are sold and serviced by a net of well established and skilled distributors in Europe and Asia, who provide excellent support for our Customers.

Creates the environment you **need.**



## Contacts.

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