

SalvisLab Thermocenter – Heating Technology with Swiss Precision



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The door leading to designed temperature

SalvisLab Thermocenter TC40 and TC100

The special characteristic of this multi-functional dry and heat cabinet is found in its unique and patented system named «All in door». This Swiss development provides the TC40 and the TC100 with some important advantages in comparison with units of conventional design with a temperature range of up to +200°C.

■ Compact and versatile

The «All in door» system is responsible for making the TC40 and the TC100 some of the most compact units in their volume class. First and foremost, the system guarantees full versatility in terms of chamber equipment. Through-leads are feasible almost anywhere.



■ Swiss quality and design

SalvisLab Thermocenters are setting standards in quality as well as in design. The units are manufactured in proud Swiss quality according to ISO9001 standards and excel through precision, dependability and design.

■ **Tight and economical**

Special insulation technology applied with the TC40 and TC100 keeps heat where it belongs, namely on the inside. The easily removed and cleaned door seal provides excellent tightness at the critical point, namely the transition from housing to front cover. Low energy consumption is guaranteed.



■ **Broad application spectrum**

The TC40 as well as the TC100 are ideally suited for applications in research and industry.



■ **«All in door» system**

All technical components (heater, ventilation and control) are located within the door. The door is fastened to the housing by four screws and may easily be removed. Thus, maintenance becomes child's play and maintenance cost become negligible.



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Safety all around

■ Dual layer safety

A safety controller monitors the function of the main controller and prevents temperature overrun of preset values. In addition, a mechanical maximum temperature safety device will cut off the entire unit in case of need. Unmanned operation of the units is permitted on the basis of this double layer safety system and in conjunction with the integrated acoustic alarm system.

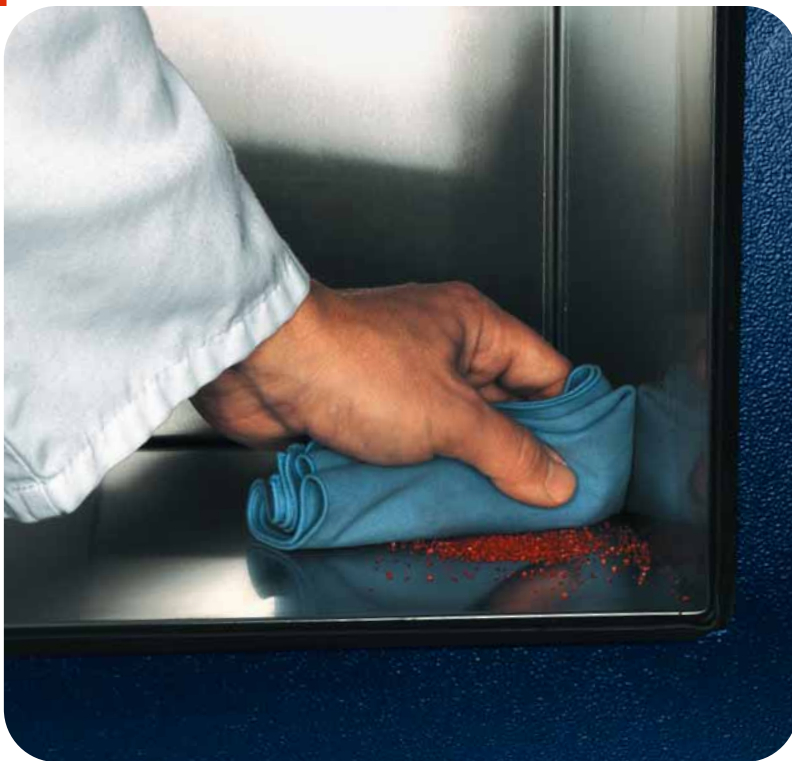
■ Safety through cleanliness

SalvisLab Thermocenters are a well-rounded affair. All transitional points between walls, ceiling and chamber bottom are conveniently rounded, thus promoting easy cleaning.



■ Safety through precision

You determine the desired temperature and the SalvisLab Thermocenter keeps it with great precision – in every corner of the payload area over the entire predetermined cycle time.



■ Safety through tightness

The door seal of the SalvisLab Thermocenter is easy to clean and provides absolute tightness. It prevents heat loss as it also keeps vapours and gases from escaping.

Exact process control



■ All is under control with the SalvisLab EasyMenu

The EasyMenu developed by SalvisLab enables intuitive programming of the SalvisLab Thermocenters. In just a few easy steps, temperature gradients, timing, temperatures and air throughput may be determined. The LCD display keeps you informed with all the desirable data over the entire process cycle.

■ We understand each other

SalvisLab Thermocenters are at home anywhere in the world. All our units are fluent in five major languages.



■ Programmable independence

Fifty programs at 15 program steps each (one gradient, one temperature setting, one turbine RPM indication and one time interval per step) may be stored with a max. program duration of 999 hours. The integrated real time clock simplifies programming. In case of power failure, the programs remain in memory.

■ Communications interface

The standard bi-directional RS232 interface (or optional RS422) enable connection of exterior equipment for programming and evaluation.



Precise temperature at any location

SalvisLab Thermocenter TC160, TC240, TC400

■ **Intelligent air exchange**

The large type SalvisLab Thermocenters feature air turbines and heater elements located in back of the housing. Air exchange is accomplished by means of the IntelliFan control unit.

■ **Precision all the way, even to the last corner**

Also the large type SalvisLab Thermocenters are dependable and precise in their temperature distribution characteristics even to the last corner and up to +275°C.





■ **Precise temperature characteristics**

The PT100 temperature sensor guarantees precise temperature characteristics exactly as required by the programmed defaults. The units are provided with a lead-through hole (dia. 6 mm) for installation of additional temperature sensors or electric cables.



■ **Unimpeded versatility**

The unimpeded versatility in terms of loading options of the chamber opens new horizons of applications for research and industry. SalvisLab Thermocenters are proven hundredfold in applications for drying of solid substances e.g. for aging tests, in conventional as well as in high tech applications.



■ **Durable innards**

The Thermocenters as well as the grid shelves are made of high quality stainless steel. This assures solid resistance against aggressive substances, thus making for long service life.

■ **Large load capacity**

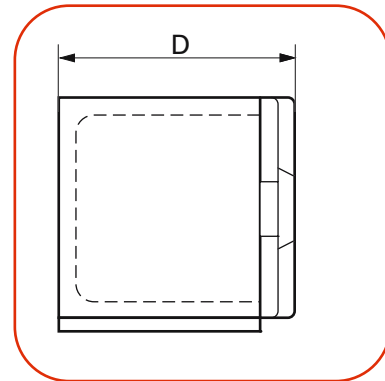
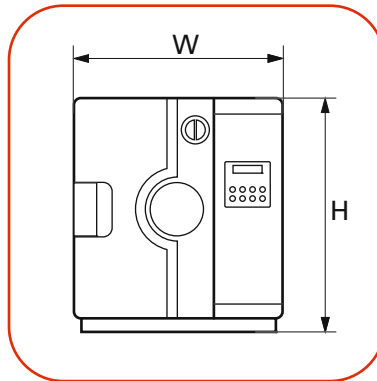
Standard equipment consists of two grid shelves. They are designed for high payload. Due to the grid design, airflow remains unimpeded.



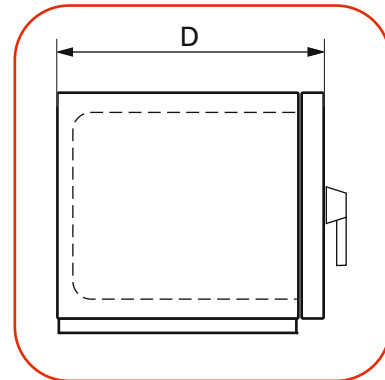
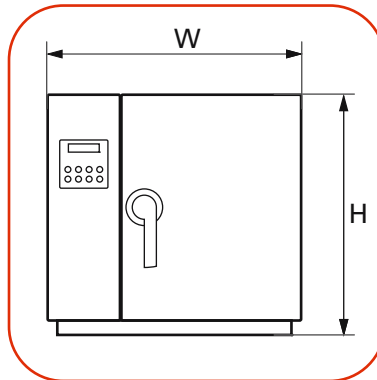
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Technical Data SalvisLab Thermocenter

TC40/TC100



TC160/240/400



Technical Data's Thermocenter

	TC40	TC100	TC160	TC240	TC400
Useable volume (l)	40	100	160	240	400
Max. Temperature (°C)	200	200	275	275	275
Outside dimensions (WxHxD) in mm	460 x 490 x 526	570 x 620 x 656	800 x 720 x 680	890 x 820 x 720	990 x 920 x 900
Inside dimensions (wxhxd) in mm	340 x 370 x 330	450 x 500 x 460	535 x 580 x 475	625 x 680 x 515	725 x 780 x 695
Weight (kg)	30	50	66	78	120
Shelves (standard/max.)	1/8	1/8	2/8	2/8	2/10
Shelf load max. (kg)	20	20	26	20	15
Voltage, ± 10% (V)	230/115	230/115	230/115	230/115	230/115
Temperature variation at 100°C (±°C)	1.0	1.0	2.0	2.5	2.5
Temperature fluctuation at 100°C (±°C)	0.1	0.1	0.2	0.2	0.2
Microprocessor PID controller	•	•	•	•	•
Alphanumeric LCD display illuminated	•	•	•	•	•
Programming	•	•	•	•	•
- Programs x steps	50 x 15	50 x 15	50 x 15	50 x 15	50 x 15
- Temperature, time, gradient	•	•	•	•	•
Timer (h)	999	999	999	999	999
RS232/RS422 interface	•/opt	•/opt	•/opt	•/opt	•/opt
Safety class	9.1	3.1	3.1	3.1	3.1

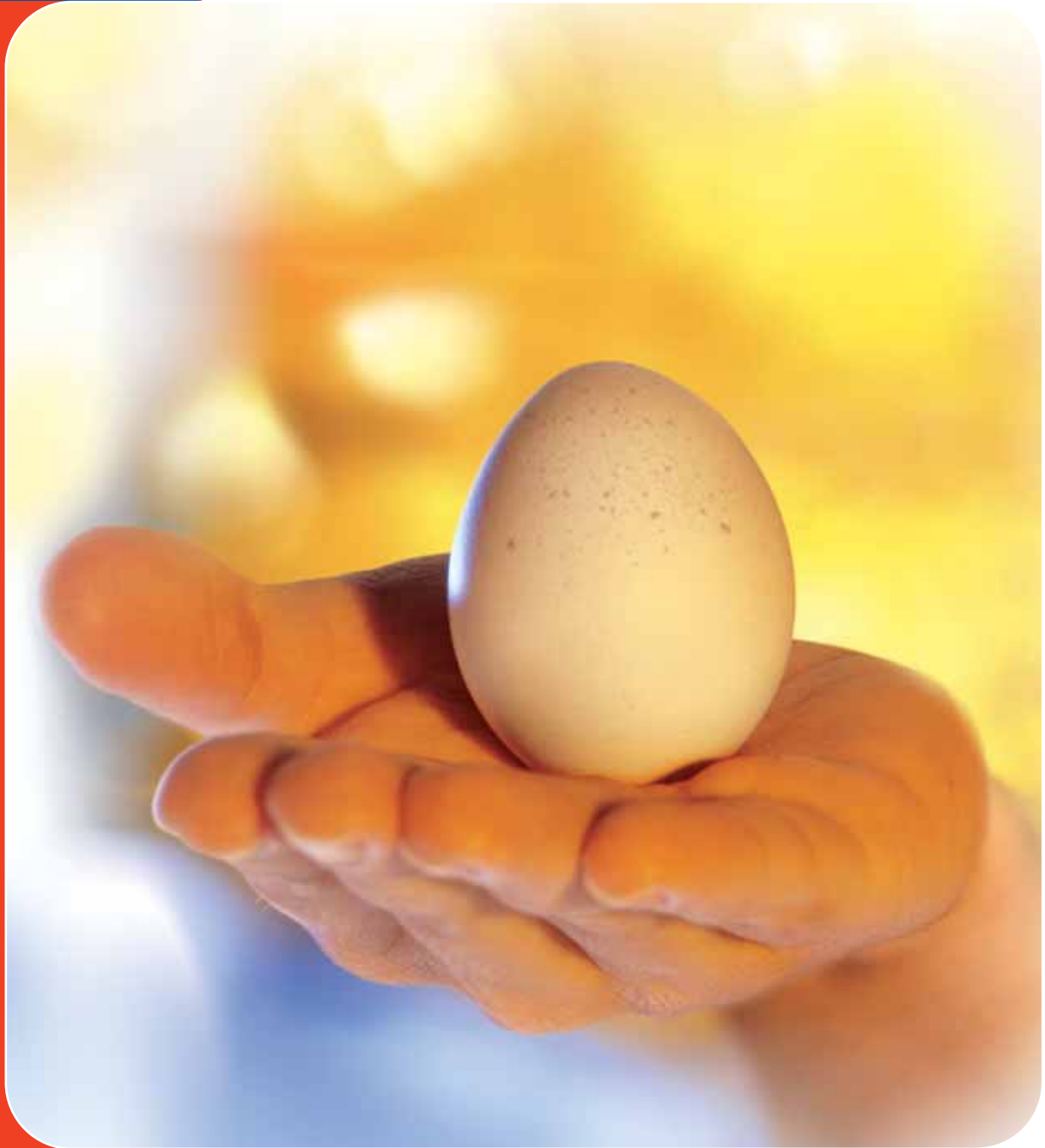
Note: technical data subject to change without prior notice.

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SalvisLab Biocenter –
Heating Technology with Swiss Precision



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SalvisLab Biocenter – This heat awakens life

The controlled atmosphere

SalvisLab Biocenter is the ideal CO₂ incubator for all cell and tissue cultures. The innovative and reliable design concept ensures optimal conditions for your applications. The selected temperature control technology operates without any ventilation inside the chamber, thus reducing the risk of contamination to a minimum. Constant conditions for temperature, CO₂ and humidity are kept independent of the load.



■ Swiss quality and design

SalvisLab Biocenter is setting standards in quality and design. The unit is manufactured in typical Swiss quality and convince through accuracy, dependability and design.



■ Safety through cleanliness

The polished stainless steel chamber and the easy removal of the shelf brackets facilitate cleaning of the inner chamber. In addition, the natural convection reduces the risk of contamination.



■ Everything is under control with the SalvisLab EasyMenu

The EasyMenu takes you through the operation of the Biocenters in easy to follow steps. The illuminated LED display keeps you informed of the required process data during the entire operating cycle.

■ Programmable Safety

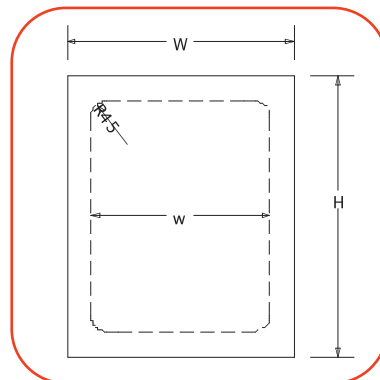
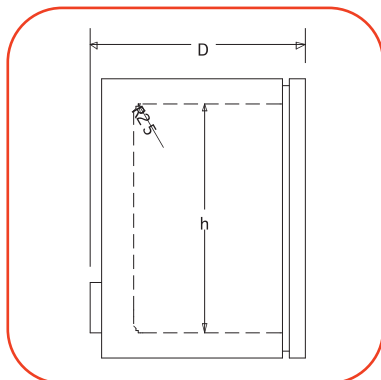
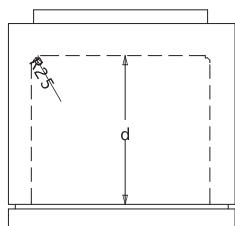
Programming the Biocenter could not be simpler. The automatic alarm system may be adapted to the individual needs of the user. The sophisticated software monitors all functions of the Biocenter.

■ Precise conditions

The interaction of the temperature sensor, IR sensor and software warrants precise operating conditions. In case of any temperature deviation, the independent safety loop takes over.



Technical Data SalvisLab Biocenter



Technical Data's Biocenter

BC175

Useable volume (l)	174/136
Temperatur range (°C)	5 above ambient temp. to +50°C
External dimensions (WxHxD) mm	685x845x664
Chamber dimensions (wxhxd) mm	540x693x444
Weight (kg)	80
Shelves	4
Voltage (V), (Hz)	220 – 240, 50/60
Temperature uniformity at 37°C (±°C)	≤ ± 0.4 °C
Temperature stability at 37°C (±°C)	0.1
Decontamination cycle at 120°C	●
CO ₂ sensor	IR-sensor
CO ₂ range	0.2 – 20
CO ₂ uniformity (±%)	0.1
CO ₂ stability (±%)	0.2
CO ₂ recovery time (%/Min)	> 0.7
CO ₂ auto zero	●
Water pan (l)	2.5
Relative humidity % at 37°C	95
Unit stackable	○
LED display for temperature	●
LED display for CO ₂	●
LED display for humidity	-
RS232 Interface	●
4 or 8 inner glass door	○
Access port	○

● Standard ○ Option – not available

Note: technical data subject to change without prior notice.

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SalvisLab Cleaners –
Quiet and Efficient - Typical Swiss Precision



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Laboratory glassware cleaner

SalvisLab SC 1160

16A01050

The laboratory glassware cleaner is designed as built-in under sink or as free standing model. Efficient washing with jet pipe racks on two levels at the same time is possible.



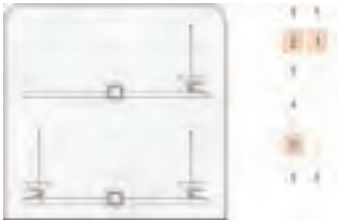
■ Accessories

Stand with boiler to pre-heat
DI water, which reduces the
washing time.



■ Key features

- LCD display
- 20 basic and 20 customisable washing programs for laboratory glassware
- **Washing with jet pipe racks on two levels at the same time**
- Built-in water softener
- Washing and rinsing temperature are fully adjustable up to +93°C
- Temperature is monitored by two independent probes (PT 1000)
- Serial Interface RS 232
- Telescopic bearing rails
- **Strong washing pump ensures identical spray pressure on both levels**
- Inner and outer chamber, washing arms and tank filters are made of high quality stainless steel
- Triple water filter to protect the washing pump
- Two automatic dosing pumps for liquid detergent
- The baskets and jet pipe racks from SC 1160 are fully interchangeable with our models SCD 1160, SCD 1190 and SD 1060



1. 440 mm
2. 170 mm
3. 210 mm

■ Connections

Power connection	400 V / 3 Ph / 50Hz
Power total	5600 W
Noise emission	53 dB(A)
Permitted room temperature	+5°C / +40°C

■ Optional

- Additional liquid dosing pump
- Viewing window in door
- Booster pump for DI water

Laboratory glassware cleaner

SalvisLab SCD 1160

16A01051

The laboratory glassware cleaner and air jet drying system is designed as built-in under sink or as free standing model. Simultaneous washing or drying on two levels with jet pipe racks is possible.



■ Accessories

Stand with boiler to pre-heat
DI water, which reduces
the washing time.



■ Key features

- LCD display
- 20 basic and 20 customisable washing programs for laboratory glassware
- **Washing or drying with jet pipe racks on two levels at the same time**
- Filtered air for jet pipe drying (Airfilter Class 5F)
- Built-in water softener for cold water
- Steam condenser
- Washing and rinsing temperature are fully adjustable up to +93°C
- Temperature is monitored by two independent probes (PT 1000)
- Serial interface RS 232
- Telescopic bearing rails
- **Strong washing pump ensures identical spray pressure on both levels**
- Inner and outer chamber, washing arms and tank filters are made of high quality stainless steel
- Triple water filter to protect the washing pump
- Two automatic dosing pumps for liquid detergent
- The baskets and jet pipe racks from SCD 1160 are fully interchangeable with our models SC 1160, SCD 1190 and SD 1060



1. 440 mm
2. 170 mm
3. 210 mm

■ Connections

Power connection	400 V / 3 Ph / 50Hz
Power total	5600 W
Noise emission	56 dB(A)
Permitted room temperature	+5°C / +40°C
Air capacity of dryer	150 m ³ /h
Power rating dryer	1400 W

■ Optional

- Additional liquid dosing pump
- Viewing window in door
- HEPA (H14) airfilter
- Booster pump for DI water

Laboratory glassware cleaner

SalvisLab SCD 1190

16A01052

The laboratory glassware cleaner and air jet drying system which includes a storage compartment for liquid detergent is designed as built-in under sink or as free standing model.

Simultaneous washing or drying on two levels with jet pipe racks is possible.



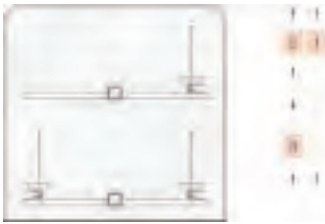
■ Accessories

Stand with boiler to pre-heat DI water, which reduces the washing time.



■ Key features

- LCD display
- 20 basic and 20 customisable washing programs for laboratory glassware
- **Integrated storage compartment for liquid detergent**
- **Washing or drying with jet pipe racks on two levels at the same time**
- **Filtered air with forced jet pipe drying (Airfilter Class 5F)**
- Built-in water softener for cold water
- Steam condenser
- Washing and rinsing temperature are fully adjustable up to +93°C
- Temperature is monitored by two independent probes (PT 1000)
- Serial Interface RS 232
- Telescopic bearing rails
- **Strong washing pump ensures identical spray pressure on both levels**
- Inner and outer chamber, washing arms and tank filters made of high quality stainless steel
- Triple water filter to protect the washing pump
- Two automatic dosing pumps for liquid detergent
- The baskets and jet pipe racks from SCD 1190 are fully interchangeable with our models SC 1160, SCD 1160 and SD 1060



1. 440 mm
2. 170 mm
3. 210 mm

■ Connections

Power connection	400 V / 3 Ph / 50Hz
Power total	5600 W
Noise emission	56 dB(A)
Permitted room temperature	+5°C / +40°C
Air capacity of dryer	150 m ³ /h
Power rating dryer	2000 W

■ Optional

- Additional liquid dosing pump
- Viewing window in door
- HEPA (H14) airfilter
- Built-in printer
- Booster pump for DI water

Laboratory glassware dryer

SalvisLab SD 1060

16A01070

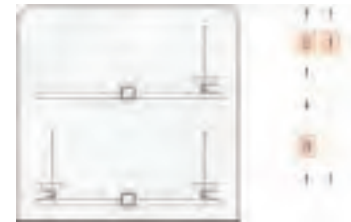
The laboratory glassware dryer is designed as built-in under sink or as free standing model. It is an ideal completion with the SC 1160.

■ Key features

- LED display
- Editable air drying programs
- **Drying with jet pipe racks on two levels at the same time**
- Jet drying with filtered air pressure (Airfilter Class 5F)
- Two heating elements with 750 W each
- Temperature is monitored by two independent probes (PT 1000)
- Serial Interface RS 232
- Telescopic bearing rails
- Inner and outer chamber are made of high quality stainless steel
- The baskets and jet pipe racks from SD 1060 are fully interchangeable with our models SC 1160, SCD 1160

■ Connections

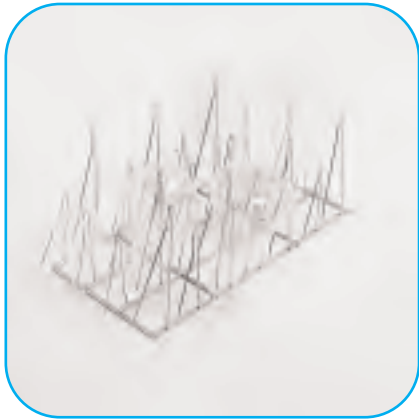
Air exhaust	Ø 60 mm
Power connection	230 V / 50Hz
Power total	2000 W
Noise emission	52 dB(A)
Permitted room temperature	+5°C / +40°C



1. 440 mm
2. 170 mm
3. 210 mm



Inserts for basic baskets



16F01550

- 1/2 insert with 28 spring hooks for laboratory glassware



16F01551

- grid basket 120x120x120 mm

16F01552

- cover for grid basket (16F01551)



16F01553

- 1/2 insert for max. 30 petri dishes (for lower basic basket)



16F01554

- grid basket, 1/4 insert (200 mm high)

16F01555

- grid basket, 1/4 insert (100 mm high)

16F01556

- grid basket, 1/4 insert (130 mm high)

16F01557

- cover for 1/4 grid basket



16F01558

- separator for grid basket, 1/4 insert

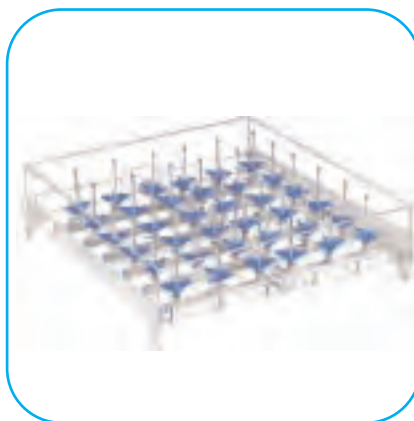
Baskets and jet pipe racks

(compatible with SC 1160, SCD 1160, SCD 1190 and SD 1060 model)



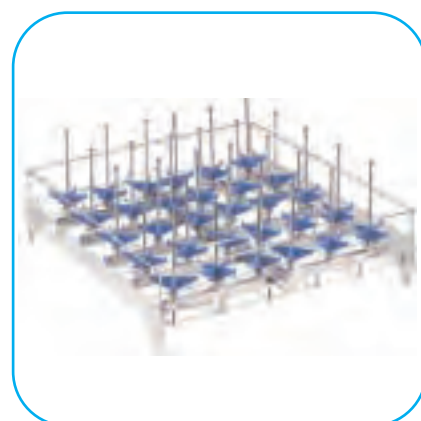
16F01530

- top basic basket with washing arm



16F01500

- top jet pipe rack
36 jets (height 80/110 mm, Ø 6 mm)



16F01505

- top jet pipe rack
25 jets (height 140/170 mm, Ø 6 mm)



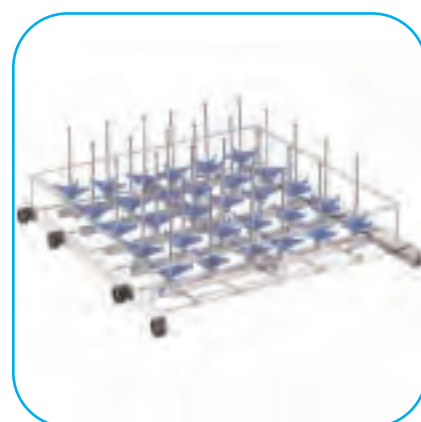
16F01531

- lower basic basket



16F01506

- lower jet pipe rack
36 jets (height 75/110 mm, Ø 6 mm)



16F01501

- lower jet pipe rack
25 jets (height 140/170 mm, Ø 6 mm)



16F01502

- 1/2 top jet pipe rack
18 jets (height 80/110 mm, Ø 6 mm)



16F01503

- top mixed jet pipe rack for centrifuge tubes, vials, test tubes with 121 positions
+ 18 jet pipes (height 140/170, Ø 6 mm)



16F01504

- lower jet pipe rack
12 jets (height 140/170 mm, Ø 6mm)



16F01533

- lower jet pipe rack with vertical insert for
max. 120 pipettes, max. length 440 mm



16F01532

- lower jet pipe rack with 2 cassettes for pipettes, max. length 300 mm

Pictures may not comply with the original

Technical Datas SalvisLab Cleaners

	SC 1160	SCD 1160	SCD 1190	SD 1060
Outside dimensions (WxHxD) mm	600x840x630	600x840x630	900x840x630	600x840x630
Inside dimensions (wxhxd) mm	540x550x510	540x550x510	540x550x510	540x550x510
Chamber volume (l)	171	171	171	171
Loading capacity (l)	151	151	151	151
Material outer housing	DIN 1.4301	DIN 1.4301	DIN 1.4301	DIN 1.4301
Material inner housing	DIN 1.4404	DIN 1.4404	DIN 1.4404	DIN 1.4404
Weight Net/Gross (kg)	65/70	65/70	108/115	66/80
Power data +/- 10% (V/kW)	400/5,6	400/5,6	400/5,6	230/2,0
Water connection ("G)	3/4	3/4	3/4	–
Drain connection Ø (mm)	25	25	25	–
Storage compartment for liquid detergent	no	no	yes	no
Washing/drying programs	20+20	20+20	20+20	2+1
Washing phases per program (max.)	9	9	9	–
Water consumption per washphase (l)	12	12	12	–
Max. wash/drying temperature (°C)	93°C	93°C	93°C	85°C
Dosingpump (optional)	2 (+1)	2 (+1)	2 (+1)	–
Water softener	yes	yes	yes	–
Jet pipe drying	no	yes	yes	yes
Air filter (optional HEPA)	–	class 5F (H14)	class 5F (H14)	class 5F (H14)
Steam condenser	no	yes	yes	no
Heat radiation free standing +/- 100 (W)	330	330	430	380
Noise emission dB(A)	52	56	56	52
Door opening	manual	manual	manual	manual
Recirculation pump capacity (l/min)	400	400	400	–
Recirculation pumpe power (W)	550	550	550	–
Material pump impeller	Ryton	Ryton	Ryton	–
Water heater power (kW)	5.1	5.1	5.1	–
Length of spray arm (mm)	470	470	470	–
Power rating drain pump (W)	70	70	70	–
Power rating dryer heater (kW)	–	1,4	2	1,5
Air capacity of dryer (m³/h)	–	150	150	150

Note: technical data subject to change without prior notice.

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SalvisLab Incucenter – Heating Technology with Swiss Precision



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SalvisLab Incucenter – This heat awakens life

Biosphere by design

SalvisLab Incucenters are highly accurate special apparatus designed for incubation in clinical and industrial laboratory fields as well as for quality control. The exclusive IntelliFan-System from SalvisLab provides uniform, constant level temperature conditions at any and all locations within the chamber – independent of load. High degree of precision is warranted over the full temperature range. The inner door made of safety glass permits optical process monitoring without heat energy loss. In support of decontamination, the units may be heated to + 110°C.



■ Swiss quality and design

SalvisLab Incucenters are setting standards in quality and design. The units are manufactured in typical Swiss quality according to ISO9001 norms and convince through accuracy, dependability and design.



■ High payload

Each apparatus comes with grid shelves as standard equipment. They are designed for high payload and the grid design allows for unimpeded airflow.



■ Precise temperature characteristics

The PT100 temperature sensor guarantees accurate temperature characteristics exactly as required by the programmed defaults. The units are provided with a lead-through hole (dia. 6 mm) for installation of additional temperature sensors or electric cables.

■ Safety through cleanliness

SalvisLab Incucenters are a well-rounded affair. All transitional points between walls, ceiling and chamber bottom are conveniently rounded, thus promoting easy cleaning. Undesirable spores and dirt will find no place to hide.



■ Full control with the SalvisLab EasyMenu

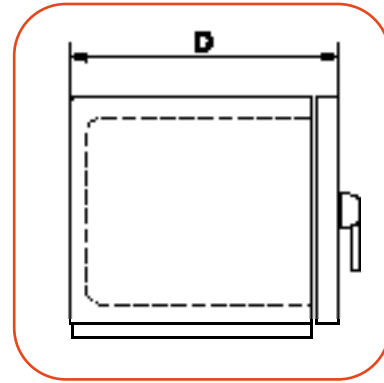
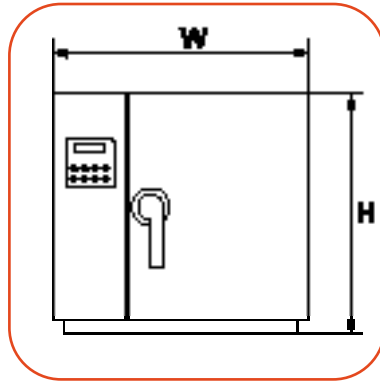
SalvisLab developed the EasyMenu which leads you through operation and programming of the Incucenters in easy to understand steps. The illuminated LCD display of the PID controller features fuzzy logic capabilities and keeps you informed with all required data over the full process cycle.

■ Programmable independence

Fifty programs at 15 program steps each (one gradient, one turbine RPM number, one time default per step) may be stored in SalvisLab Incucenters with program duration of up to 999 hours. The built-in realtime clock simplifies programming. In case of power failure, programs remain in memory.



Technical Data SalvisLab Incucenter



SalvisLab Incucenter	IC40	IC80	IC160	IC240	IC400
Useable volume (l)	40	80	160	240	400
Max. Temperature (°C)	110	110	110	110	110
Outside dimensions (WxHxD) in mm	650 x 510 x 510	750 x 540 x 600	800 x 720 x 680	890 x 820 x 720	990 x 920 x 900
Inside dimensions (wxhxd) in mm	385 x 370 x 305	485 x 400 x 395	535 x 580 x 475	625 x 680 x 515	725 x 780 x 695
Weight (kg)	30	50	66	78	120
Shelves (standard/max.)	2/5	2/5	2/8	2/8	2/10
Shelf load max. (kg)	26	26	26	20	15
Voltage, ± 10% (V)	230/115	230/115	230/115	230/115	230/115
Temperature variation at 100°C (±°C)	0.7	0.7	0.7	1.0	1.0
Temperature fluctuation at 100°C (±°C)	0.1	0.1	0.1	0.1	0.1
Microprocessor PID controller	•	•	•	•	•
Alphanumeric LCD display illuminated	•	•	•	•	•
Programming	•	•	•	•	•
- Programs x steps	50 x 15	50 x 15	50 x 15	50 x 15	50 x 15
- Temperature, time, gradient	•	•	•	•	•
Timer (h)	999	999	999	999	999
RS232/RS422 interface	•/opt	•/opt	•/opt	•/opt	•/opt
Safety class	3.1	3.1	3.1	3.1	3.1

Note: technical data subject to change without prior notice.

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SalvisLab CO₂ Incubators

SalvisLab Direct Heat fan less CO₂ Incubators vs. Fan-Driven Air-Jacketed Systems

THE PROBLEM:

Traditional fan-driven CO₂ incubated systems force warm air rapidly over T-flasks and cultures creating dynamic changes in cells over short periods of time. These rapid changes can result in diminished and sporadic cell growth and alterations in expression performance. In addition, fan-driven systems create a temperature gradient where the cultures closest to the fan will experience a much different environment than those towards the bottom of the chamber, sometimes causing more severe desiccation in those samples closest to the fan. The fan and fixtures also require a tremendous amount of space inside the chamber, space better utilized for cell culture. Finally, the fan housing is a traditional source of contamination in cell culture and an infected fan housing effectively renders the CO₂ incubator useless.

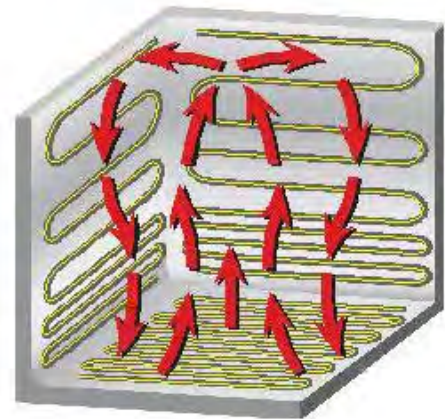
YOUR SOLUTION:

Gentle Treatment for Your Cells

SalvisLab Biocenter BC175 fan less Direct Heat CO₂ Incubators utilize a unique six-sided differential heating profile that uses natural convection to bathe the cells in atmosphere. This method allows the cells to be gently brought up to temperature and CO₂, buffering against the detrimental rapid changes seen in a fan-driven system.

More Usable Space

BC175 fan less Design allows for more usable space in the chamber. Not only is there no bulky fan inside the unit taking up space, but the whole chamber can be utilized, with samples experiencing consistent, uniform conditions throughout the chamber.



SalvisLab six-sided direct heating profile produces a very gentle convection circulation of chamber atmosphere for exceptionally uniform temperature and incubator environment.

Contamination Source Eliminated

Removing the fan housing eliminates a potential source of contamination and allows for a seamless, weldless chamber that makes cleaning effortless. There are no nooks or housings to reach into to ensure sterility.

SalvisLab CO₂ Incubators with Direct Heat are the choice to meet the demanding requirements of today's labs.

SalvisLab Biocenter... Heating Technology with Swiss Precision.

SalvisLab Vacucenter –
Heating Technology with Swiss Precision



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Vacuum dryer for delicate goods

The SalvisLab Vacucenter represents the optimal solution for oxidation-sensitive substances and thermally instable products. It provides precise thermal conditions in dust-free vacuum atmosphere. These characteristics enable highly successful SalvisLab Vacucenter applications for a wide range of laboratory applications in areas such as chemical engineering, pharmaceuticals, foodstuffs, cosmetics and electronics. The carefully designed wall heating system may be controlled to within 0.1°C and ensures stable temperature conditions over the entire Vacucenter chamber ranging up to +200°C.



■ **GLP/GMP conformity**
SalvisLab Vacucenters meet GLP and GMP standards.



■ **Safety on all levels**
The Vacucenters feature an exclusive pressure safety system with door safety catch. The sight window consists of double pane safety glass. Heating without vacuum is prevented by means of a pressure threshold switch (option). Upon door opening, the heating system is immediately turned off. SalvisLab Vacucenters are classified in Safety Class 3.1.



■ **Turbulence-free return to ambient atmosphere**

Return to atmospheric pressure is enabled by means of a precision needle valve for ambient air or inert gas. A cleverly designed input jet behind a fender plate permits pressurisation of the chamber without causing turbulence.



■ **SalvisLab EasyMenu with vacuum level control**

In a series of easy to comprehend steps, the exclusive SalvisLab EasyMenu leads the user through application and programming of the Vacucenter. The PID controller featuring fuzzy logic characteristics controls temperature, timing and even the evacuation level. Fifty programs consisting of 15 program steps each are at your disposal for a program duration of up to 999 hours.



■ **Easy cleaning**

For cleaning purposes, the insert brackets may be removed with just a few easy steps. Inside the chamber, all transitional areas between walls, ceiling and chamber floor are designed with convenient radii to enable easy and efficient cleaning.

■ **High Quality Design**

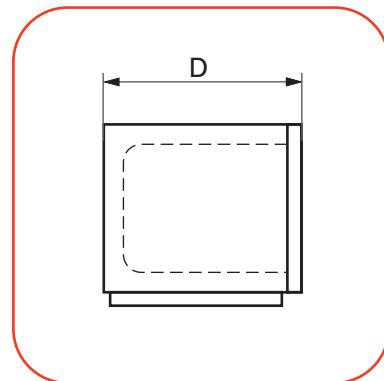
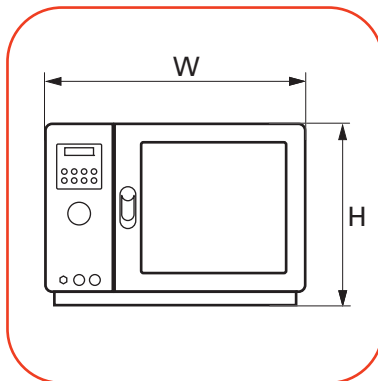
The chamber interior as well as ducting and valves are made of high quality stainless steel. The insert panels consist of anodised aluminium, thus enabling efficient heat transfer and best resistance for chemicals.



Technical Data SalvisLab Vacucenter



■ **Pressure and temperature performance**
 Constant chamber temperature and vacuum level are made possible by means of a door seal made of Silicon or Viton™. To maintain proper performance, the door seal may easily be removed for cleaning.



Technical Data's Vacuum Drying Oven

		VC 20	VC 50
Outer Dimension (WxHxD)	mm	545x375x425	645x475x525
Installation: Wall distance from the back	mm	50	50
Installation: Wall distance from the side	mm	50	50
Inner Dimension (WxHxD)	mm	250x250x320	350x350x420
Internal volume	l	20	50
Shelves	standard/max	1/3	1/5
Load per shelf	kg	20	20
Weight (empty)	kg	48	62
Temperature range approx. 5°C over RT to	°C	200	200
Temperature deviation ¹⁾ at 50°C	± °C	1.0	1.0
Temperature deviation ¹⁾ at 100°C	± °C	1.7	1.9
Temperature deviation ¹⁾ at 150°C	± °C	2.4	2.6
Temperature fluctuation ²⁾ at 150°C	± °C	0.2	0.2
Heating up ³⁾ to 70°C / to 150°C	Min	39/58	42/106
Power supply (±10%) 50/60Hz	V	230/115	230/115
Nominal wattage	W	900	1200
Heat radiation at 100°C / at 150°C	W	185/243	205/286
Equipment			
Microprocessor - Temperature Controller with LCD		Yes	Yes
Timer	Hours/Min	0-999h / 59Min	0-999h / 59Min
Printer - Communication Interface RS 232		Yes	Yes
Adjustable Print Interval		Yes	Yes
Programming	Program/Step	50/15	50/15
Ramp function adjustable in steps of	°C	0.1	0.1

Note: technical data subject to change without prior notice.

¹⁾ Measure with 3 temperature probes on horizontal level / divided in 1/3 of the chamber size

²⁾ Maximum temperature deviation in time for one temperature probe

³⁾ to 98% of set temperature

All technical specifications are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a Voltage fluctuation of ±10%. The temperature data are determined in accordance to following DIN 12880, part 2 respecting the recommended wall clearances of 10% of the height, width and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to alter technical specifications at all times without prior notice.

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salvisLAB

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SalvisLab Waterbath –
Technology with Swiss Precision



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SalvisLab Waterbath - Swiss quality and design

Multifunctional application areas

The SalvisLab Waterbath is used as an approved and universal aid for reliable temperature examinations in laboratories. The different sizes (10, 20 or 40 liters) allow multifunctional applications.

■ Features and advantages

- simple appliance with LED-display
- electronic functional control
- integrated protection against excess temperature
- excellent temperature distribution (WB20, WB40 with circulation pump)
- cover and sieve bottom are included as standard

■ Temperature control and temperature protection

The temperature is actuated over a microprocessor with integrated PID-controller. The application with the easy readable LED-display allows a simple set- actual value analysis at any time. The integrated protection against overtemperature offers an additional security.

■ Cleaning

The deep drawn, polished water tank and the easy removable sieve bottom, both from high class stainless steel 1.4301 (304 AISI) allow a simple and efficient cleaning.

■ Circulation system

The integrated circulation pump (only at WB20 and WB40) guarantees an optimal temperature uniformity by maximal test tube load.

■ Swiss quality and design

The SalvisLab Waterbaths set standards in quality and design. The units are manufactured in Swiss quality and captivate with precision and reliability.



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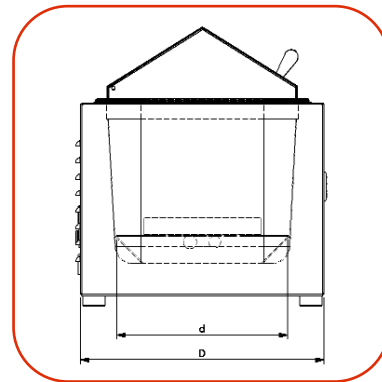
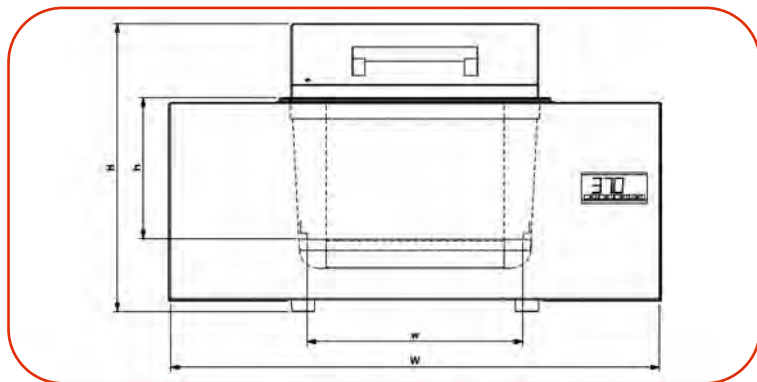


SalvisLab Waterbath – Swiss quality and design

Description	Model	Number Racks	Number test tubes	Order Number
Test tube \varnothing 13 / 20 holes	WB 10	Max. 3	Max. 60	31F11001
Test tube \varnothing 13 / 20 holes	WB 20	Max. 8	Max. 160	31F11001
Test tube \varnothing 13 / 20 holes	WB 40	Max. 16	Max. 320	31F11001
Test tube \varnothing 18 / 20 holes	WB 10	Max. 3	Max. 60	31F11003
Test tube \varnothing 18 / 20 holes	WB 20	Max. 8	Max. 160	31F11003
Test tube \varnothing 18 / 20 holes	WB 40	Max. 16	Max. 320	31F11003
Test tube \varnothing 31 / 5 holes	WB 10	Max. 3	Max. 15	31F11005
Test tube \varnothing 31 / 5 holes	WB 20	Max. 8	Max. 40	31F11005
Test tube \varnothing 31 / 5 holes	WB 40	Max. 16	Max. 80	31F11005
Milk bottle rack \varnothing 56 / 8 holes	WB 10	Max. 1	Max. 8	31F11007
Milk bottle rack \varnothing 56 / 8 holes	WB 20	Max. 3	Max. 24	31F11007
Milk bottle rack \varnothing 56 / 8 holes	WB 40	Max. 6	Max. 48	31F11007
Rack for medical hot packs	WB 10	Max. 1	Max. 5	31F11009
Rack for medical hot packs	WB 20	Max. 2	Max. 10	31F11009
Rack for medical hot packs	WB 40	Max. 6	Max. 30	31F11009



Technical Data's SalvisLab Waterbath



Technical Data's SalvisLab Waterbath	WB 10	WB 20	WB 40
Order number	31A11001	31A11003	31A11005
Temperature range (°C)	5 oRt - 80 (opt. 100)	5 oRt - 80 (opt. 100)	5 oRt - 80 (opt. 100)
Temperature stability at 37°C (+/- °C)	0.1	0.1	0.1
Temperature accuracy at 37°C (+/- °C)	0.2	0.2	0.2
Circulation pump	No	Yes	Yes
Bath volume (Litre)	10	20	40
Bath tub (deep drawn stainless steel)	DIN 1.4301	DIN 1.4301	DIN 1.4301
Bath opening wxd (mm)	251x207	455x265	577x470
Bath dept h (mm)	200	200	200
Useful bath height, lid closed (mm)	165	165	165
Outer dimensions, incl. lid, WxDxH (mm)	577x295x338	779x350x355	905x560x419
Weight (kg)	8	12	22
Mains power (Volt/Hz)	230/50	230/50	230/50
Heater power (Watt)	1000	1000	2200
Housing	Powder coated	Powder coated	Powder coated

Note: technical data subject to change without prior notice.

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