ECOCELL, DUROCELL
VENTICELL, STERICELL
VACUCELL

MMM Group

Laboratory drying ovens

…Blue Line

innovative heat technology

protecting human health

Drying ovens – as specific as your application

Approval acc. to 2006/95/EC, 2004/108/EC.
The STERICELL product line complies also with requirements of Medical Device Directive 93/42/EEC.

Laboratory drying ovens

Natural air convection

ECOCELL

Application

The highly cost-effective heating oven series for simple drying processes. The ECOCELL line produces no noise and provides a very soft air convection within the chamber.

Technical data

Volume: 22, 55, 111, 222, 404, 707 litres
Working temperature: 5 °C above ambient temperature up to 250 °C/300 °C
Interior: stainless steel, mat. No. 1.4301 (AISI 304)

DUROCELL

Special- purpose drying ovens DUROCELL with highly resistant EPOLON coating, protecting the internal chamber of aggressive substances like acids or alkaline liquids. This device ensures an optimum goods temperature equalisation. It is ideal for acid and basic hydrolysis, extraction of non-inflammable materials and decomposition of substances in solid phase.

Volume: 22, 55, 111, 222 litres
Working temperature: 5 °C above ambient temperature up to 125 °C
Interior: stainless steel, mat. No. 1.4301 (AISI 304)

Vacuum

VACUCELL

Temperature sensitive, easy decomposable or oxidative materials can be dried very tenderly in VACUCELL vacuum drying ovens, where there is the opportunity of extrusion of air by inert gas. Also complicated components with hardly accessible hollow spaces are drying quick and effectively in VACUCELL ovens.

Volume: 22, 55, 111 litres
Working temperature: 5 °C above ambient temperature up to 200 °C
Door window
Integrated duct for sensors etc. (∅ 40 mm)
Inert gas connection
Needle valve for fine dosing
Pressure resistant inner chamber
Safety valve-door VENTIFLEX
Interior: stainless steel, mat. No. 1.4571 (AISI 316Ti)

Forced air convection

VENTICELL

Due to a patented ventilation system the air within the VENTICELL chamber is ventilated in a regular spiral way. This leads to a homogenous temperature profile throughout the chamber and short heating times. Operating economy is ensured by higher rate and precision of heating in laboratories. Especially suitable for very moist goods.

Volume: 22, 55, 111, 222, 404, 707 litres
Working temperature: 10 °C above ambient temperature up to 250 °C/300 °C
Interior: stainless steel, mat. No. 1.4301 (AISI 304)

STERICELL CE 0123

STERICELL is intended for hot air sterilization of materials under specified temperature and duration.
It is characterized by quiet running with a patented fine system of forced air circulation in the chamber by means of a built-in fan which eliminates the "cold air" area formation. Loose and deposit-forming substances can be sterilized in closed bottles. The device is suitable for medical and veterinary clinics, hospitals, pharmacies, health care centres, and laboratories.

Volume: 22, 55, 111, 222, 404 litres
Working temperature: 10 °C above ambient temperature up to 250 °C
Interior: stainless steel, mat. No. 1.4301 (AISI 304)

The versatile standard line with microprocessor control unit

- 3 adjustable programs
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 99 hours 59 minutes
- digital safety thermostat
- manual control of the air exhaust flap (the suction and air exhaust only VENTICELL, the air exhaust only ECOCELL, DUROCELL)
- adjustable ventilation rate 50–100% (only VenticeII)

Options

- door window and interior lighting (excluded volume 22 litres) • access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume) • door lock • left door versions (excluded volume 22 and 707 litres) • separate PT 100 sensor • special software WarmComm • stainless steel casing of the devices

- access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume) • door lock • left door versions (excluded volume 22 litres) • separate PT 100 sensor • special software WarmComm • stainless steel casing of the devices

- base box Vacustation • chemicaly resistant vacuum pump • chemicaly resistant vacuum pump with inlet separator and exhaust condenser • external vacuum control system • special software WarmComm • separate PT 100 sensor • stainless steel casing of the devices

- door window and interior lighting (excluded volume 22 litres) • access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume) • door lock • left door versions (excluded volume 22 and 707 litres) • separate PT 100 sensor • special software WarmComm • HEPA-filter for installation in air inlet • two-door (pass through) version (possible only by types with volume 222, 404, and 707 litres) • temperature range enlargement up to 300 °C • stainless steel casing of the devices

The high-tech comfort line with multi-functional microprocessor control unit

- 6 adjustable programs
- chip card system for individual program storage
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 0–40 years with 1 min intervals
- digital safety thermostat
- real time
- selectable rate of temperature increase or decrease – "RAMPS"
- programming of program time segments – "SEGMENTS"
- programme cycles
- adjustable ventilation rate 10 to 100 % (VENTICELL)
- manual control of the air exhaust flap (the suction and air exhaust only VENTICELL, the air exhaust only ECOCELL, DUROCELL)
- keyboard blocking
- door opening control

Options

- door window and interior lighting (excluded volume 22 litres)
- access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume)
- door lock
- left door versions (excluded volume 22 and 707 litres)
- special software WarmComm
- BMS relay alarm contact
- separate PT 100 sensor
- stainless steel casing of the devices

- access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume)
- door lock
- left door versions (excluded volume 22 litres)
- special software WarmComm
- BMS relay alarm contact
- separate PT 100 sensor
- stainless steel casing of the devices

- base box Vacustation
- chemicaly resistant vacuum pump
- chemicaly resistant vacuum with inlet separator and exhaust condenser
- built-in vacuum control system
- special software WarmComm
- BMS relay alarm contact
- vacuum display
- separate PT 100 sensor
- stainless steel casing of the devices
- vacuum display

- door window and interior lighting (excluded volume 22 litres)
- access ports ∅ 25, 50, 100 mm (∅ 100 mm is not available for 22 litres volume)
- door lock
- left door versions (excluded volume 22 and 707 litres)
- special software WarmComm
- HEPA-filter for installation in air inlet
- BMS relay alarm contact
- separate PT 100 sensor
- two-door (pass through) version (possible only by types with volume 222, 404, and 707 litres)
- temperature range enlargement up to 300 °C
- stainless steel casing of the devices

Device characteristic

- 3 preset sterilization programmes (possibility of a user modification by an authorized person)
- preset programmes blocking
- lagged programme switching-on function
- preheating time – settable duration of the equalization temperature of the load
- acoustic and visual alarm of error state
- digital safety thermostat – protects the device, its surroundings and processed material from an inadmissible temperature rise
- manual control of the suction and exhaust flap
- RS 232 interface for a printer or PC connection

Options

- access ports ∅ 25, 50, and 100 mm (∅ 100 mm is not available for 22-litres volume)
- lockable door
- left hinged door (except for the 22-litre volume)
- 1 to 4 flexible PT 100 temperature sensors
- special WarmComm system
- HEPA filter/HEPA pressure filter
- BMS relay alarm contact
- two-door (pass-through) model (222- and 404-litre versions only)
- automatic door blocking in two-door version
- stainless steel casing of the unit

Line... CELL

CE

Application	Device type	Type of the laboratory cabinet	Standard line / Comfort line	Natural convection	Forced convection	Working temperature (°C)	Volume 22 (l)	Volume 48 (l)	Volume 55 (l)	Volume 111 (l)	Volume 170 (l)	Volume 222 (l)	Volume 404 (l)	Volume 707 (l)
drying, tempering, sterilization	**ECOCELL**	Drying oven	●/●	●		5*–250/300	●/●		●/●	●/●		●/●	●/●	●/●
	DUROCELL	Drying oven with inner resistant EPOLON- coating	●/●	●		5*–125	●/●		●/●	●/●		●/●		
	VENTICELL	Drying oven	●/●		●	10*–250/300	●/●		●/●	●/●		●/●	●/●	●/●
	STERICELL* **	Drying oven / hot-air sterilizer	●		●	10*–250	●		●	●		●	●	
	VACUCELL	Vacuum drying oven	●/●			5*–200	●/●		●/●	●/●				
incubation	**INCUCELL**	Incubator	●/●	●		5*–99.9	●/●		●/●	●/●		●/●	●/●	●/●
	INCUCELL V	Incubator	●/●		●	10*–99.9	●/●		●/●	●/●		●/●	●/●	●/●
	FRIOCELL	Incubator with cooling	/●		●	-9.9/0–99.9	●/●		/●	/●		/●	/●	/●
	CLIMACELL	Incubator with cooling and controlled humidity	/●		●	-9.9/0–99.9				/●		/●	/●	/●
	CO2CELL**	Incubator with CO_2 – atmosphere	●/●	●		1*–50/120		●/●			●/●			

All technical data relate to and are valid for the ambient temperature of 22 °C and the voltage fluctuation of ± 10 %.

* above ambient temperature

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CE 0123

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