

I N D E X

Up-Right Ultra Low Freezers	-86° C	pag. 06
Chest Ultra Low Freezers	-86° C	pag. 08
Up-Right Mini Ultra Low Freezers	-86° C	pag. 09
Up-Right Low Freezers	-40° C	pag. 10
Up-Right Low Freezers	-45° C	pag. 11
Chest Low Freezers	-40° C	pag. 12
Up-Right Laboratory Freezers	-30° C	pag. 13
Chest Laboratory Freezers	-30° C	pag. 14
Up-Right Forced Air Low Lab. Freezers	-30° C	pag. 15
Up-Right Laboratory Freezers	-25° C	pag. 16
Chest Laboratory Freezers	-25° C	pag. 17
Spark Free Refrigerators	+4° C	pag. 18
Blood Banks Refrigerators	+4° C	pag. 19
Professional Laboratory Refrigerators	+4° C	pag. 22
Standard Laboratory Refrigerators	+4° C	pag. 24
Refrigerated Incubators	+2°/+60° C	pag. 26
Growth Chambers	+4°/+55° C	pag. 30
Laboratory Incubators	+60° C	pag. 34
Laboratory Ovens	+250° C	pag. 34

-86° C

-40° C

+4° C

+37° C

+250° C

**Laboratory Refrigerators
Blood Banks Refrigerators
Laboratory Freezers
Ultra Low Freezers
Incubators and Ovens
Walk-in Chambers
Plant Growth Chambers**



OUR EXPERIENCE IS OUR STRENGTH

Ing. Climas began its story producing laboratory -86° C ultra low freezers at end of the 70's, under an economical and new design concept.

During all this years we had developed new laboratory cooling chain equipments.

One of the most important product lines, were developed end of the 80's: cooling incubators and plant growth chambers; this product lines have been improved and increased rapidly in the last 20 years.

During the last 5 years we had adjust rapidly the technical performance to the current technological and customers requests.

Our company started the export challenges at the end of the 90 's; today represent more than 65% of our total sales turnover. We are present in all continents, with distributors in all relevant countries.

All developements showed in this catalogue, have been generated over a big effort to maintain our robust and economical original product philosophy, made our equipments a perfect balance of quality and price.

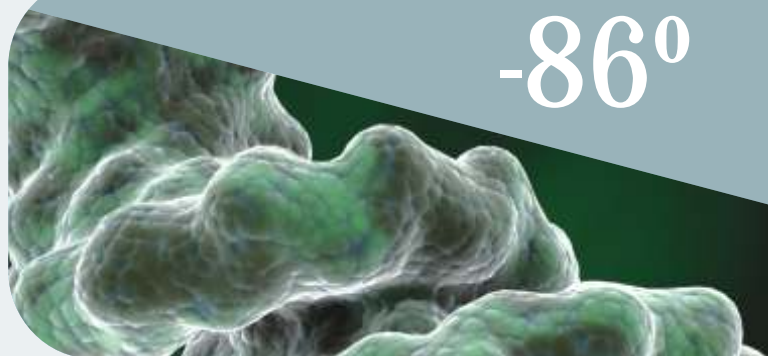
LABORATORY PROFESSIONAL VERTICAL ULTRA LOW FREEZERS MODELS CVF UNTIL -86° C

TECHNICAL SPECIFICATIONS

- Working range temperature from -86° C to -40° C
- Digital temperature control unit with digital display, placed at visual level on the door front, for easy reading
- Control panel with tactile keyboard
- Pt 100 temperature probe, accuracy 0.1° C on the display
- Acoustic and visual alarms with battery back up: maximal and minimal temperature, also power failure
- Alarms indications with battery back up: door open, battery empty, filter saturation; also for system failures, power supply and room temperature
- Lock code protection of the control system by numerical password
- Printer for temperature, recorded every 20 min.
- Display for ambient room temperature
- Display of the current voltage level
- Alarm record of the 10 last incidents, with indication of date, time, cause of alarm and time of failure
- Main power switch, key protected

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery (replacing the printer)
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Back-up security system CO₂/LN₂
- Storage systems



-86°



CVF 525/86
with chart recorder

Models	Capacity in Litres	Isolation in mm	N° of internal doors	N° of shelves	Power in W	Compressors HP	Internal Dimen. (mm) wide x depth x high	External Dimen. (mm) wide x depth x high	Weight net/gross	Volume m ³
CVF 220/86	220	155	2	1	1300	1.3	470 x 570 x 750	850 x 940 x 1599	200/230	1.6
CVF 330/86	330	155	4	3	1500	1.4	470 x 570 x 1200	850 x 940 x 2000	250/290	2.2
CVF 525/86	525	110	4	3	1800	1.5	600 x 650 x 1345	850 x 940 x 2000	280/320	2.2
CVF 800/86	800	110	3	2	3200	3.2	930 x 686 x 1308	1230 x 996 x 2056	420/480	3.1

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

TECHNICAL SPECIFICATIONS

- Solid door with opening aids, easy to open, with independent lock and key
- Isolation 155 mm of high density injected polyurethane, CFC and HCFC free for models: CVF 330/86 and CVF 220/86.
For models CVF 525/86 and CVF 800/86: 110 mm Vacuum Formed High Density Polyurethane (VIP)
- Cooling gases, CFC and HCFC free, biodegradables
- Surrounding evaporator system
- Hermetic compressors built on parallel, over dampers, low noise <48 dB
- Air filter, easy to take out and clean, built on the front
- Double heated perimeter gasket on the door, ensure ice free and a perfect airtight closing
- Internal chamber of stainless steel
- Free high regulating stainless steel shelves
- Individual inner doors, allow the access to each shelf, avoid cool losing in case of frequent door openings
- External body of carbon steel, epoxy coated
- Base with 4 wheels, for easy movement
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.



CVF 220/86

-86°

Optional inventory storage system

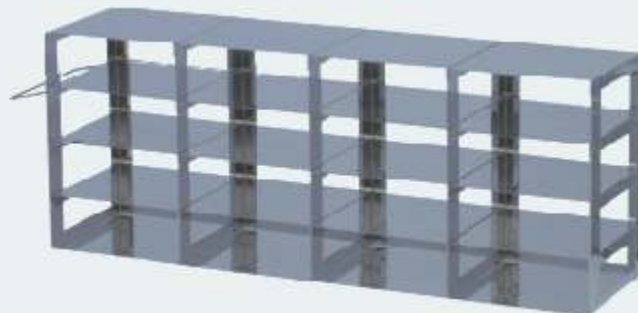
Ref. of the Rack	for Model	Number of racks made of stainless steel	Box of 50 mm (2 inch) high	Box of 75 mm (3 inch) high	Box of 100 mm (4 inch) high
400 321	CVF 220/86	6	120	96	72
400 322	CVF 330/86	12	192	144	108
400 323	CVF 525/86	16	320	256	192
400 324	CVF 800/86	24	720	480	360

For boxes 136 x 136 and 133 x 133 mm



	Made of carton paper Ref.	Made of polypropylene Ref.
Box of 50 mm high with lid	400 341	400 351
Box of 75 mm high with lid	400 342	400 352
Box of 100 mm high with lid	400 343	400 353

Not included the internal dividers, on request



ULTRA LOW LABORATORY PROFESSIONAL CHEST FREEZERS CAPACITY 400 LITRES MODEL CHF 400/86 UNTIL -86° C

TECHNICAL SPECIFICATIONS

- Working range temperature from -86° C to -40° C
 - Digital temperature control system with digital display
 - Control panel with tactile key board
 - Pt 100 temp. probe, accuracy 0.1° C on the display
 - Acoustic and visual alarms with battery back up: maximal and minimal temperature, also power failure
 - Alarms indications with battery back up: door open, battery empty, filter saturation; also for system failures, power supply and room temperature
 - Lock code protection of the control system by numerical password
 - Printer for temperature recorded every 20 min
 - Display for of ambient room temperature
 - Display of the current voltage level
 - Alarm record of the 10 last incidents, with indication of: date, time, cause of alarm and time of failure
 - Main power switch, key protected
-
- Top lid with opening aids, incorporate compensators, easy to open
 - Independent lock and key
 - Isolation 155 mm of high density injected polyurethane, CFC and HCFC free
 - Cooling gases CFC and HCFC free, biodegradables
 - Surrounding evaporator system.
 - Hermetic compressors built on parallel, over dampers, low noise <48 dB
 - Air filter, easy to take out and clean, built on the front
 - Double heated perimeter gasket on the lid, ensure ice free and a perfect airtight closing
 - Internal chamber of stainless steel
 - Individual inner lids, allow the individual access and avoid cool loosing in case of frequent openings
 - External body of carbon steel, epoxy coated
 - Base with 4 wheels, for easy movement
 - Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

CHF 400/86 with chart recorder



OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery (replacing the printer)
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Back-up security system CO₂/LN₂
- Storage systems

Optional inventory storage system

Reference	For model	Number of racks made of stainless steel
400 328	CHF 400/86	24
Box of 50 mm (2 inch) high	Box of 75 mm (3 inch) high	Box of 100 mm (4 inch) high
240	168	120



For boxes 136 x 136 and 133 x 133 mm.



	Made of carton paper Ref.	Made of polypropylene Ref.
Box of 50 mm high with lid	400 341	400 351
Box of 75 mm high with lid	400 342	400 352
Box of 100 mm high with lid	400 343	400 353

Not included the internal dividers, on request

Model	Capacity in Litres	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
CHF 400/86	330	1500	1.4	1200 x 465 x 585	2005 x 900 x 1060	330/380	2.2

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

PERSONAL ULTRA LOW LABORATORY PROFESSIONAL FREEZER CAPACITY 110 LITRES MODEL CVF 110/86 UNTIL -86° C

TECHNICAL SPECIFICATIONS

- Special design for places with space problems or small quantity of samples
 - Working range temperature from -86° C to -40° C
 - Digital temperature control unit with digital display, placed at the door front for easy reading.
 - Control panel with tactile key board
 - Pt 100 temperature probe, accuracy 0.1° C on the display
 - Acoustic and visual alarms with battery back up: maximal and minimal temperature, also power failure
 - Alarms indications with battery back up: door open, battery empty, filter saturation; also for system failures, power supply and room temperature
 - Alarms indications for: door open, battery empty, filter saturation; also system failures, power supply and room temperature
 - Lock code protection of the control system by numerical password
 - Printer for temperature recorded every 20 min
 - Display for of ambient room temperature
 - Display of the current voltage level
 - Alarm record of the 10 last incidents, with indication of: date, time, cause of alarm and time of failure
 - Main power switch, key protected
-
- Solid door with opening aids, easy to open, with independent lok and key
 - Isolation 155 mm of high density injected polyurethane, CFC and HCFC free
 - Cooling gases, CFC and HCFC free, biodegradables
 - Surrounding evaporator system.
 - Hermetic compressors built on parallel, over dampers, low noise <48 dB
 - Air filter, easy to take out and clean, built on the front
 - Double heated perimeter gasket on the door, ensure ice free and a perfect airtight closing
 - Internal chamber of stainless steel
 - Free high regulating stainless steel shelves
 - Individual inner doors, allow the access to each shelve and avoid cool loosing in case of frequent door openings
 - External body of carbon steel, epoxy coated
 - Adjustable feet in height
 - Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery (replacing the printer)
- Remote control interface connection RS 485
- Potencial free out put for remote alarm control
- Back-up security system CO₂/LN₂
- Storage systems
- Base with 4 wheels, for easy movement (increase the high in 30 mm)



CVF 100/86 with chart recorder



Model	Capacity in Litres	Isolation in mm	N° of internal doors	N° of shelves	Power in W	Compressors HP	Internal Dimen. (mm) wide x depth x high	External Dimen. (mm) wide x depth x high	Weight net / gross	Volume m ³
CVF 110/86	110	155	2	1	1000	1.0	460 x 500 x 480	950 x 700 x 750	100/140	0.5

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY PROFESSIONAL VERTICAL LOW TEMPERATURE FREEZER CAPACITY 360 LITRES MODEL CVF 360/40 UNTIL -40° C

- Working range temperature from -20° C to -40° C
- Digital control unit with digital display
- Controller protected with password acces code
- Pt 100 temperature probe, accuracy 0.1° C on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failure; with battery back-up
- Indication for door open, with acoustic and visual alarms

TECHNICAL SPECIFICATIONS

- Solid door with opening aids, easy to open, independent lock and key
- Digital temperature control system, on the control panel, with tactile keyboard
- Lock code protection of the control system by numerical password
- Main power switch, key protected
- Isolation 110 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Surrounding evaporator system
- Hermetic compressor, built over dampers, low noise <48 dB
- Double perimeter gasket on the door, heated door frame, ensure ice free and a perfect airtight closing
- Internal chamber of stainless steel
- Internal shelves of plastic coated steel wire
- External body of carbon steel, epoxy coated
- Base with 4 wheels, for easy movement
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery supply
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Back-up security system CO₂/LN₂
- Storage systems
- Stainless steel shelves



CVF 360/40 with chart recorder

-40°

Model	Capacity in Litres	N° of shelves	Power in W	Compressors HP	Internal/ External	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CVF 360/40	360	4	400	0.4	Stainless Steel/ Epoxy	430 x 665/400 x 1330/1100	730 x 940 x 1830	130/150	1.5

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY PROFESSIONAL VERTICAL LOW TEMPERATURE FREEZERS MODELS CVF UNTIL -45° C

- Digital temperature controller
- Working range temperature from -35° C to -45° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up

TECHNICAL SPECIFICATIONS

- Solid door with opening aids and big size handle
- Two side opening door, available right or left hand config.
- Security lock on the door with key
- Lock code protection of the control system by numerical password
- Retro illuminate main switch
- Isolation 80 mm of high density injected polyurethane,
- CFC and HCFC free
- Refrigeration gas, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48 dB
- Internal chamber of ABS (post formed polypropylene)
- with aluminium shelves incorporate the evaporator in each selve
- Drawers of polypropylene
- External body of carbon steel, epoxy coated
- Adjustable frontal feet in height
- Double heated perimeter gasket on the door, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery supply
- Indication for door open, with acoustic and visual alarms
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Storage systems
- Data loggers
- Base with 4 wheels, for easy movement

CVF 200/45
with chart recorder



-45°

Models	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
CVF 100/45	100	ABS/Epoxy	3	307	0.35	440 x 400 x 675	620 x 500 x 1050	70/100	0.8
CVF 200/45	200	ABS/Epoxy	5	307	0.35	440 x 420 x 1350	620 x 640 x 1750	80/110	1.2
CVF 300/45	299	ABS/Epoxy	7	307	0.35	440 x 420 x 1510	620 x 640 x 1910	90/120	1.3
CVF 350/45	343	ABS/Epoxy	8	350	0.40	440 x 420 x 1640	620 x 640 x 2040	100/130	1.45
CVF 450/45	454	ABS/Epoxy	14	350	0.40	607 x 560 x 1510	750 x 760 x 1925	120/150	1.4

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY PROFESSIONAL CHEST LOW TEMPERATURE FREEZERS MODELS CHF UNTIL -45° C

- Digital temperature controller with display
- Working range temperature from -35° C to -45° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up

TECHNICAL SPECIFICATIONS FOR MODELS CHF and CHF 400/40/AF

- Lid with opening aids, compensators and big size handle
- Security lock with key
- Lock code protection of the control system by numerical password
- Retro illuminate main switch
- Isolation 100 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48 dB
- Internal chamber of gofer aluminium
- Surrounding evaporator
- Internal baskets, of plastic coated steel wire
- External body of carbon steel, epoxy coated
- Double perimeter gasket on the lid, with heated frame, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES FOR MODELS CHF and CHF 400/40/AF

- Temperature circular chart recorder 7 days, with independent battery supply (increase equipment external wide 200 mm)
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Storage systems
- Data loggers
- Base with 4 wheels, for easy movement

LABORATORY PROFESSIONAL HIGH STABILITY FORCED AIRFLOW CHEST FREEZER MODEL CHF 400/40/AF UNTIL -45° C, CAPACITY 380 LITRES

CHF 440/45

- Special design for applications of high temperature precision requirements (eg. for test of products and quality control)
- Digital temperature controller
- Working range temperature from 0° C to -40° C
- Accuracy +/- 0,1° C on the display
- Homogeneity +/- 1,0° C
- Stability +/- 0,5° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failure; with battery back up
- Chamber ventilated with big volume forced airflow system

-40°/-45°



Models	Capacity in Litres	Internal/ External	N° of lids	N° of baskets	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net / gross	Volume m ³
CHF 250/45	250	Al/Expoxy	1	3	307	0.30	930 x 451 x 646	1132 x 760 x 917	80/100	1.2
CHF 440/45	440	Al/Expoxy	1	4	350	0.40	1445 x 500 x 646	1647 x 809 x 917	95/115	1.7

Models	Capacity in Litres	Internal/ External	N° of lids	N° of baskets	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net / gross	Volume m ³
CHF 400/40/AF	380	Al/Expoxy	1	4	400	0.4	1200 x 500 x 646	1647 x 809 x 917	115/130	1.7

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY PROFESSIONAL VERTICAL FREEZERS MODELS CVF UNTIL -30° C

- Digital temperature controller with display
- Working range temperature from -18° C to -30° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up

TECHNICAL SPECIFICATIONS

- Solid door with opening aids and big size handle
- Two side opening door, available right or left hand configuration
- Security lock on the door with key
- Lock code protection of the control system by numerical password
- Retro illuminate main switch
- Isolation 80 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48 dB
- Internal chamber of ABS (post formed polypropylene) with aluminium shelves, incorporate the evaporator in each shelf
- Drawers of polypropylene
- External body of carbon steel, epoxy coated
- Adjustable feet in height
- Double heated perimeter gasket on the door, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery supply
- Indication for door open, with acoustic and visual alarms
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Storage systems
- Data loggers
- Base with 4 wheels, for easy movement

-30°



CVF 300/30 with chart recorder

Models	Capacity in Litres	Internal/External	N° of drawers	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net / gross	Volume m ³
CVF 60/30	60	ABS/Epoxy	3	100	0.15	316 x 420 x 444	555 x 624 x 830	50/70	0.50
CVF 150/30	144	ABS/Epoxy	4	100	0.15	497 x 407 x 651	600 x 628 x 1050	65/85	0.80
CVF 200/30	200	ABS/Epoxy	6	110	0.25	440 x 420 x 1350	620 x 640 x 1750	80/110	1.20
CVF 300/30	299	ABS/Epoxy	7	110	0.25	440 x 420 x 1510	620 x 640 x 1910	90/120	1.30
CVF 350/30	343	ABS/Epoxy	8	120	0.35	440 x 420 x 1640	620 x 640 x 2040	100/130	1.45
CVF 450/30	454	ABS/Epoxy	14	220	0.50	607 x 560 x 1510	750 x 640 x 1925	120/150	1.40

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

LABORATORY PROFESSIONAL CHEST LOW TEMPERATURE FREEZERS MODELS CHF UNTIL -30° C

- Digital temperature controller with display
- Working range temperature from -18° C to -30° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up

TECHNICAL SPECIFICATIONS FOR MODELS CHF and CHF 400/30/AF

- Lid with opening aids, with compensators and big size handle
- Security lock with key
- Lock code protection of the control system by numerical password
- Retro illuminate main switch
- Isolation 100 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Hermetic compressors built over dampers, low noise <48 dB
- Internal chamber of gofer aluminium
- Surrounding evaporator
- Internal baskets, of plastic coated steel wire
- External body of carbon steel, epoxy coated
- Double perimeter gasket on the lid, with heated frame, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature with 85-90% R.H.

OPTIONAL ACCESSORIES FOR MODELS CHF and CHF 400/40/AF

- Temperature circular chart recorder 7 days, with independent battery supply (increase equipment external wide 200 mm)
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Storage systems
- Data loggers
- Base with 4 wheels, for easy movement

LABORATORY PROFESSIONAL HIGH STABILITY FORCED AIRFLOW CHEST FREEZER MODEL CHF 400/30/AF UNTIL -30° C, CAPACITY 380 LITRES

CHF 440/30

- Special design for applications of high temperature precision requirements (eg. for test of products and quality control)
- Digital temperature controller with display
- Working range temperature from 0° C to -30° C
- Accuracy +/- 0,1° C on the display
- Homogeneity +/- 1,0° C
- Stability +/- 0,5° C
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back up
- Chamber ventilated with big volume forced airflow system

-30°



Models	Capacity in Litres	Internal/ External	N° of lids	N° of baskets	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CHF 250/30	250	Al/Epoxy	1	3	110	0.20	930 x 451 x 646	1132 x 760 x 917	80/100	1.2
CHF 440/30	440	Al/Epoxy	1	4	140	0.30	1445 x 500 x 646	1647 x 809 x 917	95/115	1.7

Models	Capacity in Litres	Internal/ External	N° of lids	N° of baskets	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net / gross	Volume m ³
CHF 400/30/AF	380	Al/Expoxy	1	4	400	0.4	1200 x 500 x 646	1647 x 809 x 917	115/130	1.7

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

AIRFLOW UP-RIGHT PROFESSIONAL FREEZERS Models CVF/30/AF UNTIL -30° C

- Digital temperature controller with display
- Working range temperature from -18° C to -30° C
- Forced airflow recirculation
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up

TECHNICAL SPECIFICATIONS

- Big volume ventilator in the chamber for circulation forced airflow system, distributed uniformly upward
- Solid door easy to open, available open right or left hand factory config.
- Models with "C" (in the chart): triple heated thermal glass door
- Internal illumination
- Security lock on the door with key
- Lock code protection of the control system by numerical password
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas: R404a, CFC & HCFC free, biodegradable
- Hermetic compressor very low noise, mounted over dumpers noise level <48 dB
- Heated door frame, avoid ice formation
- Internal and external performance of stainless steel AISI 304
- Perimeter gasket on the door, ensure ice free and a perfect airtight closing
- Internal shelves of plastic coated steel wire
- Evaporator with automatic defrost by hot gas bypass system
- Adjustable feet in height
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESORIES

- Temperature circular chart recorder 7 days, with independent battery supply
- Indication for door open, with acoustic and visual alarms
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Retro illuminate main switch
- Storage systems
- Data loggers
- Base with 4 wheels, for easy movement

-30°



CVF600/30/AF/C with chart recorder

Models in this chart with "C": triple heated thermal glass door

Models	Capacity in Litres	Internal/External	N° of door	Glass door	N° of shelves	Power in W	Compr. HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CVF350/30/AF/C	325	Stainless steel	1	1	3	910	0.5	357 x 588 x 1412	482 x 695 x 2100	115/135	1.2
CVF350/30/AF	325	Stainless steel	1	no	3	910	0.5	357 x 588 x 1412	482 x 695 x 2100	115/135	1.2
CVF600/30/AF/C	700	Stainless steel	1	1	3	1490	1	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CVF600/30/AF	700	Stainless steel	1	no	3	1490	1	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CVF1300/30/AF/C	1300	Stainless steel	2	2	6	2100	2	1278 x 689 x 1398	1385 x 794 x 2100	250/280	3.1
CVF1300/30/AF	1300	Stainless steel	2	no	6	2100	2	1278 x 689 x 1398	1385 x 794 x 2100	250/280	3.1

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

LABORATORY STANDARD VERTICAL FREEZERS MODELS CVF UNTIL -25° C

- Temperature controller with digital display (CVF 60/25: analog controller)
- Working range temperature from -14° C to -25° C

TECHNICAL SPECIFICATIONS

- Solid door with opening aids and big size handle
- Two side opening door, available right or left hand config.
- Isolation 80 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48 dB
- Internal chamber of ABS (post formed polypropylene) with aluminium shelves, incorporate the evaporator in each shelf
- Drawers of performed polypropylene
- External body of carbon steel, epoxy coated
- Adjustable frontal feet in hight
- Heated perimeter gasket on the door, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESORIES

- Temperature circular chart recorder 7 days, with independent battery supply (increase equipment high 200 mm)
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up
- Security lock on the door with key
- Indication for door open, with acoustic and visual alarms
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Data loggers
- Base with 4 wheels, for easy movement



-25°

CVF 300/25 with chart recorder and alarms

Models	Capacity in Litres	Internal/External	N° of drawers	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CVF 60/25	60	ABS/Epoxy	2	100	0.15	316 x 420 x 444	555 x 624 x 630	40/60	0.4
CVF 150/25	150	ABS/Epoxy	4	100	0.15	497 x 407 x 651	600 x 628 x 850	50/70	0.6
CVF 200/25	200	ABS/Epoxy	5	110	0.25	440 x 420 x 1150	600 x 630 x 1447	60/80	1.05
CVF 300/25	300	ABS/Epoxy	7	110	0.25	440 x 420 x 1310	600 x 630 x 1645	70/90	1.15
CVF 350/25	350	ABS/Epoxy	8	120	0.30	440 x 420 x 1410	600 x 630 x 1841	80/100	1.28
CVF 450/25	450	ABS/Epoxy	14	220	0.40	607 x 560 x 1410	750 x 760 x 1725	110/130	1.20

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

LABORATORY STANDARD CHEST FREEZERS MODELS CHF UNTIL -25° C

- Temperature controller with digital display
- Working range temperature from -14° C to -25° C

TECHNICAL SPECIFICATIONS

- Lid with opening aids, with compensators and big size handle
- Security lock with key
- Isolation 100 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48 dB
- Internal chamber of gofer aluminium
- Surrounding evaporator
- Internal baskets, of plastic coated steel wire
- External body made carbon in steel, epoxy coated
- Double perimeter gasket on the lid, with heated frame, ensure ice free and a perfect airtight closing
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESORIES

- Temperature circular chart recorder 7 days, with independent battery supply (increase equipment wide 200 mm)
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Data loggers
- Base with 4 wheels, for easy movement



CHF 440/25 with alarms

Models	Capacity in Litres	Internal/External	N° of baskets	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CHF 250/25	250	Al/Epoxy	3	110	0.20	930 x 451 x 646	1132 x 760 x 917	80/100	1.2
CHF 440/25	440	Al/Epoxy	4	140	0.30	1445 x 500 x 646	1647 x 809 x 917	95/115	1.7

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY INTERNAL SPARK FREE REFRIGERATORS MODELS CSS FROM +2° C TO +14° C

- Specific design to store inflammable products at refrigerated temp.
- Working range temperature from +2° C to +14° C
- Digital temperature controller with digital display
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature

TECHNICAL SPECIFICATIONS

- Solid door and big size handle
- Two side opening door, available right or left hand configuration
- Security key on the door
- Spark free internal chamber
- Models with natural air convection system
- Evaporator with automatic defrost
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Cooling gas R600, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Internal chamber of ABS (post formed polypropylene)
- External body of carbon steel, epoxy coated
- Internal shelves of plastic coated steel wire
- Magnetic perimeter seal on the door, ensure a perfect airtight closing
- Adjustable frontal feet in height
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

OPTIONAL ACCESSORIES

- Temperature circular chart recorder 7 days, with independent battery supply
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up
- Indication for door open, with acoustic and visual alarms
- Alarm sound stop switch, key protected
- On/Off retro-illuminate power switch
- Lock code protection of the control system by numerical password
- Data loggers
- Base with 4 wheels, for easy movement
- Set of stainless steel drawers with telescopic guides
- Storage systems and dividers for drawers

WARNING, IMPORTANT NOTE:

This equipment is named as increase security spark free, as high security equipment. This is because there is not any component inside of the chamber that could generate sparks or any fire starter. This performance makes the equipment able to store organic solvents and corrosive acids. But is essential to remark that this equipment, as equipment in self, is not to store fire or explosive products, neither explosion proof.

Warning!!!!

"This equipment is not explosion proof".

Is according norm ATEX 98/9/CE



+4°

CSS 360 with chart recorder and alarms

Models	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CSS 180	180	ABS/Epoxy	3	130	0.2	513 x 441 x 702	600 x 600 x 1050	65/85	0.6
CSS 260	260	ABS/Epoxy	4	150	0.2	513 x 441 x 1047	600 x 600 x 1216	75/95	0.75
CSS 360	360	ABS/Epoxy	5	170	0.4	513 x 441 x 1418	600 x 600 x 1590	85/105	0.85
CSS 500	500	ABS/Epoxy	5	170	0.5	652 x 537 x 1338	752 x 710 x 1516	100/120	1.1

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

BLOOD BANK REFRIGERATOR, CAPACITY 360 LITRES Professional models CBBS 360 C SET AT +4° C

- Digital temperature controller with double display, working temperature set at +4° C
- Pt100 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature (set at +6° C and +1° C), probe and power failures; with battery back-up
- Double independent temperature sections controlled in the chamber
- Temperature circular chart recorder 7 days, with independent battery supply
- Forced airflow recirculation

TECHNICAL SPECIFICATIONS

- Temperature digital controller, set at +4° C (working range from +2° C to 14° C)
- Homogeneity in the chamber +/- 1° C
- Temperature independent digital display with measure of each probe and status, in each independent chamber section
- Two different Pt 100 temperature probes, with an accuracy on the display of 0,1°, to achieve the whole range of temperature inside in all the chamber. Measured in 2 different sections, warranty a high resolution of the real measured temperature
- The 2 probes are inside a container with a liquid, density same as the blood
- Acoustic and visual alarms for temperature, probe and power failures; NiCd battery back-up, with battery charger (supported over 18 hours)
- Indication for door open, with acoustic and visual alarms
- Model with forced airflow system, distributed uniformly upward, with high homogeneity of the temperature inside the chamber
- Models with double thermal glass heated door and big size handle
- Internal illumination, with separate switch
- Heated door frame, to avoid condensation, with separate switch
- Magnetic perimeter seal on the door, ensure a perfect airtight closing
- Security key on the door
- On/Off retro-illuminate power switch on the back side
- Evaporator with automatic defrost
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Internal body of stainless steel 18/8 AISI 304
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- External body of steel, epoxy coated
- Base with 4 wheels, for easy movement
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

CBBS 360 SD model with 5 internal plastic wire coated shelves

Models	Capacity in Litres	Internal/External	*Capacity of blood bags	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CBBS 360 C/SD	358	S.S./Epoxy	150-200	5	600	0.5	515 x 460 x 1280	705 x 650 x 1943	130/150	1.4

CBBS 360 WD model with 5 internal telescopic drawers of stainless steel

Models	Capacity in Litres	Internal/External	*Capacity of blood bags	N° of drawers	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CBBS 360 C/WD	358	S.S./Epoxy	150-200	5	600	0.5	515 x 460 x 1280	705 x 650 x 1943	150/180	1.4

1 cu ft = 28,3 litres. 1 inch = a 25,4 mm.

*Capacity of 450 ml blood bags change if use drawers or shelves



CBBS 360 C/WD

- Models with shelves reference CBBS 360C SD
- Models with drawers reference CBBS 360C WD
- Set of stainless steel drawers with telescopic guides
Dimensions of each drawer:
387 x 405 x 87 mm (W x D x H)

OPTIONAL ACCESSORIES

- Storage systems and dividers for drawers
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Data loggers
- Digital Printer

BLOOD BANK REFRIGERATORS Professional models CBB SET AT +4° C

- Digital temperature controller with display, working temperature set at +4° C.
- Forced airflow recirculation
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature (set at +6° C and +1° C), probe and power failures; with battery back-up
- Double independent section temperature control in the chamber, in model CBBR 300C
- Temperature circular chart recorder 7 days, with independent battery supply

TECHNICAL SPECIFICATIONS for all CBB Models

- Temperature digital controller, set at +4° C (working range from +2° C to 14° C)
- Homogeneity in the chamber +/- 1,5° C
- Probe inside a container with a liquid, same density as the blood
- Acoustic and visual alarms for temperature, probe and power failures; NiCd battery back-up, with battery charger (supported over 18 hours)
- Alarm sound stop switch, key protected
- Lock code protection of the control system by numerical password
- Temperature circular chart recorder 7 days, with battery to works even with power failure situations
- Model with forced airflow system, distributed uniformly upward, with high homogeneity of the temperature inside the chamber
- Models with double thermal glass door, with big size handle
- Internal illumination, with separate switch
- Two side opening door, available right or left hand factory config.
- Security key on the door
- On/Off retro-illuminate power switch
- Evaporator with automatic defrost
- Cooling gas R134a, CFC and HCFC free, biodregradable
- Hermetic compressor, built over dampers, low noise <48dB
- Internal body made according the model (see the data chart)
- External body made according the model (see the data chart)
- Adjustable feet in height
- Internal shelves of plastic coated steel wire
- Magnetic perimeter seal on the door, ensure a perfect airtight closing
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Tropical treatment, allow to work until +32° C working area temperature with 85-90% R.H.

OPTIONAL ACCESSORIES for all CBB models

- Set of stainless steel drawers with telescopic guides
- Storage systems and dividers for drawers
- Base with 4 wheels, for easy movement
- Models with solid door
- Internal light for solid door models
- Triple thermal glass door and heated frame, to avoid condensation in high humidity areas (only in models of stainless steel body and chamber)
- Indication for door open, with acoustic and visual alarms
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Digital Printer
- Data loggers
- Storage systems



CBBR 300 C (pag. 21)

All models in this chart: internal chamber and external body of stainless steel

Models	*Capacity of blood bags	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CBBE 350 C	200/220	325	Stainless steel	4	500	0.4	375 x 588 x 1412	482 x 695 x 2100	105/120	0.8
CBBS 350 C	200/250	390	Stainless steel	4	500	0.4	500 x 610 x 1280	620 x 810 x 1940	115/135	1.2
CBB 600 C	250/300	590	Stainless steel	5	950	0.75	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CBB 900 C	360/400	1040	Stainless steel	8	950	0.80	1250 x 560 x 1330	1385 x 700 x 2030	220/240	2.4
CBB 1300 C	520/600	1290	Stainless steel	10	1100	1.3	1278 x 689 x 1398	1390 x 794 x 2100	250/280	3.1

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

*Capacity of 450 ml blood bags change if use drawers or shelves

BLOOD BANK REFRIGERATORS Professional models CBB SET AT +4° C



CBB 1300C

+4°



CBB 70



CBB 600 C with drawers
and set of 4 wheels (pag. 20)

CBB 180 and CBBR 300 C models: internal cabinet of ABS (polypropylene), external cabinet of steel epoxy coated

Models	*Capacity of blood bags	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CBB 180C	30/40	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 1050	75/95	0.6
CBB 180C/UC	30/40	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 885	65/85	0.6
CBBR 300C	180/200	300	ABS/Epoxy	5	370	0.3	480 x 440 x 1150	600 x 610 x 1830	80/100	0.9

CBBR 340 C models: internal cabinet of steel polypropylene coated, external cabinet of steel epoxy coated

Models	*Capacity of blood bags	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CBBR 340C	190/210	340	PP/Epoxy	6	370	0,38	550 x 420 x 1500	660 x 590 x 1860	80/92	1.0

*PP.= Polypropylene

CBB 70 mini blood bank for low capacity and small space requirements, special design for small quantity of blood bags. Model with solid door and internal glass door. Internal of stainless steel /external cabinet of steel epoxy coated

Models	*Capacity of blood bags	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CBB 70	12/20	70	S.S./Epoxy	1	450	0,2	410 x 350 x 500	550 x 545 x 940	75/105	0.6

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

*Capacity of 450 ml blood bags change if use drawers or shelves

LABORATORY REFRIGERATORS PROFESSIONAL MODELS CR FROM +2° C to +14 °C

- Digital temperature controller with display, working range temperature from +2° C to +14° C.
- Forced airflow recirculation
- Pt1000 probe with 0.1° C accuracy on the display
- Acoustic and visual alarms for maximal and minimal temperature, probe and power failures; with battery back-up
- Double independent section temperature control in the chamber, in model CRR 300C

TECHNICAL SPECIFICATIONS for all CR models

- Temperature digital controller with display
- Homogeneity in the chamber +/- 1,5° C
- Acoustic and visual alarms for temperature, probe and power failures; NiCd battery back-up, with battery charger (supported over 18 hours)
- Lock code protection of the control system by numerical password
- Model with forced air flow system, distributed uniformly upward, with high homogeneity of the temperature inside the chamber
- Models with double thermal glass door and big size handle marked with "C" (in the data chart), acc. selected model
- Models with solid door optional (in the data chart)
- Two side opening door, available right or left hand factory config.
- Internal illumination with separate switch
- Security key on the door
- On/Off retro-illuminate power switch
- Evaporator with automatic defrost
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Internal body according the model (see the data chart)
- External body according the model (see the data chart)
- Internal shelves of plastic coated steel wire
- Magnetic perimeter seal on the door, ensure a perfect airtight closing
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Adjustable feet in height
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.

+4°



CR 600 C
with chart recorder



CR 1300

Remarks:

All models in this chart: internal chamber and external body of stainless steel

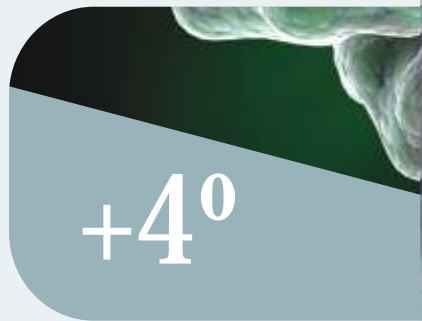
Models Solid door	Models Glass door	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CR 600	CR 600C	590	Stainless steel	5	950	0.75	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CR 900	CR 900C	1040	Stainless steel	8	950	0.80	1250 x 560 x 1330	1385 x 700 x 2030	220/240	2.4
CR 1300	CR 1300C	1290	Stainless steel	10	1100	1.3	1278 x 689 x 1398	1390 x 794 x 2100	250/280	3.1

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY REFRIGERATORS PROFESSIONAL MODELS CR FROM +2° C to +14 °C

OPTIONAL ACCESSORIES for all CR models

- Temperature circular chart recorder 7 days, with independent battery supply
- Base with 4 wheels, for easy movement
- Light for solid door models
- Triple thermal glass door and heated frame, to avoid condensation in high humidity areas (only of stainless steel models)
- Indication for door open, with acoustic and visual alarms
- Main power switch, key protected
- Alarm failure sound stop switch, key protected
- Remote control interface connection RS 485
- Potential free out put for remote alarm control
- Digital Printer
- Data loggers
- Set of stainless steel drawers with telescopic guides
- Storage systems and dividers for drawers



CR 1300 C with chart recorder



CRR 300 C

CR 180 UC, CR 180 and CRR 300 C: internal of ABS (polypropylene), external of steel epoxy coated
CRRE 340 C: internal of carbon steel PP coated (polypropylene), external of steel epoxy coated
Remarks: Models with solid door without internal light (light as option)

Models Solid door	Models Glass door	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/ gross	Volume m ³
CR 180 UC	CR 180 C UC	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 885	65/85	0.6
CR 180	CR 180C	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 1050	75/95	0.6
-	CRR 300C	280	ABS/Epoxy	5	370	0.3	480 x 440 x 1150	600 x 610 x 1830	80/100	0.9
-	CRRE 340C	340	PP/Epoxy	6	370	0.38	550 x 420 x 1500	660 x 590 x 2030	80/92	1.0
CRS 250	CRS 250C	250	Stainless steel	4	360	0.3	500 x 380 x 1280	620 x 580 x 1940	105/120	0.9
CRS 350	CRS 350C	325	Stainless steel	4	460	0.4	362 x 588 x 1495	482 x 695 x 2100	160/180	1.0
CRE 350	CRE 350C	390	Stainless steel	4	500	0.4	500 x 610 x 1280	620 x 810 x 1940	115/135	1.2
CRS 500	CRS 500C	470	Stainless steel	4	727	0.4	580 x 530 x 1467	700 x 700 x 2030	170/190	1.3

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

*PP= Polypropylene

LABORATORY STANDARD REFRIGERATORS FROM +2° C TO +14° C
models CBF with forced airflow recirculation
and models CBS natural air convection

- Temperature controller with digital display
- Working range temperature from +2° C to +14° C

TECHNICAL SPECIFICATIONS for all CBF and CBS Models

- Model with forced airflow system, distributed uniformly upward, with high homogeneity of the temperature inside the chamber, (only in models CBF)
- Models with natural air convection system (only in models CBS)
- Models with double thermal glass door and big size handle marked with "C" (in the data chart), acc. selected model
- Models with solid door optional (in the data chart)
- Two side opening door, available right or left hand factory config.
- Internal illumination with separate switch
- Security key on the door
- Evaporator with automatic defrost
- Cooling gases R134a or R600 (acc. selected equipment), CFC and HCFC free, biodegradables
- Hermetic compressor, built over dampers, low noise <48dB
- Internal body according the model (see the data chart)
- External body according the model (see the data chart)
- Adjustable feet in height
- Internal shelves of plastic coated steel wire
- Magnetic perimeter seal on the door, ensure a perfect airtight closing
- Isolation 60 mm of high density injected polyurethane, CFC and HCFC free
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.



CBF 1300 (p.g. 25)

OPTIONAL ACCESSORIES for all CBF and CBS Models

- Temperature circular chart recorder 7 days, with independent battery supply (increase equipment high 200 mm in external body of steel epoxy coated models)
- Indication for door open, with acoustic and visual alarms
- Alarm sound stop switch, key protected
- Main power switch, key protected
- Data loggers
- Base with 4 wheels, for easy movement
- Set of stainless steel drawers with telescopic guides
- Storage systems and dividers for drawers
- Triple thermal glass door and heated frame, to avoid condensation in high humidity areas (only of stainless steel models)

All models in this data chart with internal of ABS (polypropylene), external cabinet of steel epoxy coated

Models Solid door	Models Glass door	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high*	Weight** net/gross	Volume m ³
CBS 180	CBS 180C	180	ABS/Epoxy	3	130	0.2	513 x 441 x 702	600 x 600 x 850	65/85	0.6
CBS 260	CBS 260C	260	ABS/Epoxy	4	150	0.2	513 x 441 x 1047	600 x 600 x 1216	75/95	0.75
CBS 360	CBS 360C	360	ABS/Epoxy	5	170	0.4	513 x 441 x 1418	600 x 600 x 1590	85/105	0.85
CBS 500	CBS 500C	500	ABS/Epoxy	5	170	0.5	652 x 537 x 1338	752 x 710 x 1516	100/120	1.1

*Under counter models CBS with glass door high 885 mm ** In models with glass door, increase weight 20 Kg.

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

LABORATORY STANDARD REFRIGERATORS FROM +2° C TO +14° C STANDARD MODELS CBF with forced air flow ventilation and CBS natural air convection



CBF 600 C

CBF 180

CBF 350 C

Internal cabinet of ABS polypropylene (180, 250, 360 and 500 litres, capacity models)
External cabinet of Steel coated epoxy (180, 250, 360 and 500 litres, capacity models)

Internal/External cabinet of Steel coated polypropylene/epoxy (340 litres, capacity model)

Internal cabinet of Stainless Steel AISI 304 (325, 560, 600, 900 and 1300 litres, capacity models)
External cabinet of Stainless Steel AISI 304 (325, 560, 600, 900 and 1300 litres, capacity models)

Remarks: Models in this data chart with solid door (without internal light. Light as option)

Models Solid door	Models Glass door	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
CBF 180 UC	CBF 180C UC	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 850	65/85	0.6
CBF 180	CBF 180C	180	ABS/Epoxy	3	170	0.2	513 x 441 x 702	600 x 600 x 885	65/85	0.6
CBF 260	CBF 260C	252	ABS/Epoxy	4	170	0.2	513 x 441 x 1047	600 x 600 x 1216	75/95	0.75
CBFS 330	CBFS 330C	325	Stainless steel	7	460	0.4	362 x 588 x 1495	482 x 695 x 2100	160/180	1.0
CBF 360	CBF 360C	352	ABS/Epoxy	5	180	0.4	513 x 441 x 1418	600 x 600 x 1590	85/105	0.85
-	CBFE 340	340	*PP/Epoxy	6	370	0.38	550 x 420 x 1500	660 x 590 x 2030	880/92	1.0
CBF 500	CBF 500C	491	ABS/Epoxy	5	210	0.5	652 x 537 x 1338	752 x 710 x 1516	100/120	1.1
CBFS 500	CBFS 500C	470	Stainless steel	4	727	0.4	580 x 530 x 1467	700 x 700 x 2030	170/190	1.3
CBF 600	CBF 600 C	560	Stainless steel	5	950	0.5	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CBF 900	CBF 900 C	890	Stainless steel	8	950	0.75	1250 x 560 x 1330	1385 x 700 x 2030	220/240	2.4
CBF 1300	CBF 1300 C	1230	Stainless steel	10	1100	1.1	1278 x 689 x 1398	1390 x 794 x 2100	250/280	3.1

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

*P.P.= Polypropylene

LABORATORY REFRIGERATED INCUBATORS WITH FORCED AIRFLOW SYSTEM MODELS CIR-S FROM +2° C TO +60° C

- Ventilation of the chamber with powerful airflow
- PID Microprocessor, control all parameters
- Working range temperature from +2° C to +60° C
- Acoustic and visual alarm for maximal temperature
- LED digital display for temperature and control
- Accuracy +/- 0.1° C, on the display
- Homogeneity +/- 0.3° C, in the chamber at 40° C
- Stability +/- 0.3° C, in the chamber at 40° C
- Pt 100 probe for the temperature control

TECHNICAL SPECIFICATIONS FOR MODELS CIR-S AND CIR-S/HR

- All models with internal thermal safety glass door
- On/Off retro illuminate switch
- Touch control panel
- Test periods to program over digital timer
- One internal electrical plug (power supply) inside the chamber, in order to connect equipments inside
- Internal illumination with separate switch
- Alarm sound stop switch, up to reset the selected temperature
- Airflow models with forced system, with horizontal ward distributed uniformly, allow a high homogeneity of the air temperature, inside the chamber
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Evaporator with automatic defrost
- External cabinet of steel Epoxy coated
- Internal chamber of stainless steel 18/8 AISI 304; with rounded corners, easy to clean
- Shelves grill type, with high regulation, of stainless steel 18/8
- External solid door, opens 180°, available to right hand configuration (other options on request)
- Perimeter gasket, heat resistant, made possible a perfect closing of the door and perfect tight chamber
- Silicon heater around the chamber for better temperature distribution
- Isolation 60 mm, of high density injected polyurethane, CFC and HCFC free
- Adjustable feet in height
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.



CIR-S 70

+2° .. +60°

Models	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
CIR-S 70	70	Stainl. steel /Epoxy	1	150	0.2	410 x 350 x 500	550 x 545 x 940	68/98	0.6
CIR-S 170	170	Stainl. steel /Epoxy	2	300	0.3	490 x 400 x 750	635 x 579 x 1195	74/124	0.8
CIR-S 250	250	Stainl. steel /Epoxy	3	350	0.35	500 x 500 x 950	635 x 675 x 1390	80/115	1.0

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY REFRIGERATED INCUBATORS WITH FORCED AIRFLOW SYSTEM AND HUMIDITY CONTROL MODELS CIR-S/HR FROM +2° C TO +60° C

- Humidity control: working range of 60 to 98% R.H. (+/-3 ° C), in a temperature range from +19° C to +40° C
- Ventilation of the chamber with powerful airflow
- PID Microprocessor, control all parameters
- Temperature range from +2° C to +60° C
- Acoustic and visual alarm for maximal temperature
- LED digital display for temperature and control
- Accuracy +/- 0.1° C, on the display
- Homogeneity +/- 0.3° C, in the chamber at 40° C
- Stability +/- 0.3° C, in the chamber at 40° C
- Pt 100 probe for the temperature control
- Electronic probe for the humidity measurement (4-20 mA) with accuracy of +/-2% (in models CIR-S / HR)
- Humidity generator by ultrasound, introduce in the chamber microscopic water drops at ambient temperature (in models CIR-S / HR)
- Humidity dry system over cooling generator, by condensation (in models CIR-S / HR)
- Models CIR-S / HR, for ICH stability test. More details for this type of special test and the accessories, please on request.

CIR-S 250/HR



+2°..+60° 60%..98%

OPTIONAL ACCESSORIES for all CIR-S AND CIR-S/HR Models

- Acoustic and visual alarms for maximal and minimal temperature, probe and power failure; supported with battery
- Temperature and /or humidity circular chart recorder 7 days, with independent battery supply
- Indication for door open, with alarms
- Main power switch, key protected
- Remote control interface connection RS 485
- Potential free out put for alarm remote control
- Data loggers
- Storage systems
- Base with 4 wheels, for easy movement
- Door with lock and key
- Cable port for external instruments
- Additional internal electrical plugs
- Fulfilments of the stability test, according to the ICH norm

Models	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m³
CIR-S 70/HR	60	Stainl. steel /Epoxy	1	450	0.2	410 x 350 x 500	550 x 545 x 940	75/105	0.6
CIR-S 170/HR	160	Stainl. steel /Epoxy	2	600	0.3	490 x 400 x 750	635 x 579 x 1195	80/110	0.8
CIR-S 250/HR	240	Stainl. steel /Epoxy	3	650	0.35	500 x 500 x 950	635 x 675 x 1390	85/120	1.0

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY MULTI PURPOSES REFRIGERATED INCUBATORS WITH FORCED AIRFLOW SYSTEM MODELS CIR FROM +4° C TO +55° C

- Ventilation of the chamber with powerful airflow
- PID Microprocessor, control all parameters with Fuzzy logic, ensure a high temperature stability
- Working range temperature from +4° C to +55° C (from +4° C to +45° C in model CIR 500)
- LED digital display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,5° C, in the chamber at 37° C
- Stability +/- 0.4° C, in the chamber at 37° C
- Pt 100 probe, type A, for the temperature control

TECHNICAL SPECIFICATIONS FOR MODELS CIR AND CIR/HR

- Solid door with opening aids and big size handle
- Two side opening door, available right or left hand configuration
- Security lock on the door
- On/Off retro illuminate switch
- Models with big volume ventilator in the chamber, for circulation forced airflow system; distributed uniformly upward, high homogeneity of the temperature inside the chamber
- Pt 100, type A, probe for the temperature control with resolution of 0,1° C
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Cooling system control by electro valves
- Evaporator with automatic defrost
- Internal body of stainless steel 18/8 AISI 304
- External body of stainless steel 18/8 AISI 304
- Model CIR 500: external body in steel Epoxy coated
Internal chamber of ABS (post formed polypropylene)
- Internal shelves, grill type, of plastic coated steel wire
- Perimeter gasket, heat resistant, made possible a perfect closing of the door and a perfect tight chamber
- Isolation 60 mm, of high density injected polyurethane, CFC and HCFC free
- Adjustable feet in height
- Tropical treatment, allow to work until +32°C working area temperature, with 85-90% R.H.



CIR 1300



CIR 500

+4°...+55°

Models CIR	Capacity in Litres	Internal/ External	N° of shelves	Power consume in W*	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m³
CIR 500	480	ABS/Exposy	5	710	0.5	652 x 537 x 1338	752 x 710 x 1716	120/140	1.25
CIR 600	570	Stainless Steel	5	1700	0.75	580 x 689 x 1398	687 x 794 x 2100	180/200	1.7
CIR 900	1040	Stainless Steel	8	1700	1.0	1250 x 560 x 1330	1385 x 700 x 2030	220/240	2.4
CIR 1300	1290	Stainless Steel	10	2100	1.3	1278 x 689 x 1398	1390 x 794 x 2100	250/280	3.1

Note: Models with polypropylene internal chambers, maximal working temperature +45° C

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY MULTI PURPOSES REFRIGERATED INCUBATORS WITH FORCED AIRFLOW SYSTEM AND HUMIDITY CONTROL MODELS CIR/HR FROM +4° C TO +55° C

- Humidity control: working range of 60 to 98% R.H. (+/-3 ° C), in a temperature range from +19° C to +40° C
- Ventilation of the chamber with powerful airflow
- PID Microprocessor, control all parameters with Fuzzy logic, ensure a high temperature stability
- Working range temperature from +4° C to +55° C (from +4° C to +45° C in model CIR 500)
- LED digital display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,5° C, in the chamber at 37° C
- Stability +/- 0.4° C, in the chamber at 37° C
- Pt 100 probe, type A, for the temperature control
- Electronic probe for the humidity measurement (4-20 mA) with accuracy of +/-2% (in models CIR/ HR)
- Humidity generator by ultrasound, introduce in the chamber microscopic water drops at ambient temperature (in models CIR/ HR)
- Humidity dry system over cooling generator, by condensation (in models CIR/ HR)
- Models CIR/HR, for ICH stability test.
More details for this type of special test and the accessories, please on request.

OPTIONAL ACCESSORIES for all CIR AND CIR/HR Models

- Acoustic and visual alarms for maximal and minimal temperature, probe and power failure; supported with battery
- Indication for door open, with alarms
- Alarm sound stop switch, key protected, up to reestablishment of the selected temperature
- Temperature and /or humidity circular chart recorder 7 days, with independent battery supply
- Printer for temperature and /or humidity record
- Remote control interface connection RS 485
- Software on request
- Potential free out put for alarm remote control
- Test periods to program over digital timer
- Data loggers
- Lock code protection of the control system by numerical password
- Base with 4 wheels, for easy movement
- Internal electrical plugs (power supply) inside the chamber, in order to connect equipments
- Cable port for external instruments
- Internal illumination with separate switch
- Glass door, only for models CIR, without humidity control (in models CIR/HR is not available glass door)
- Fulfilments of the stability test, according to the ICH norm

+4°..+45°
60%..98%



CIR/HR 600



CIR/HR 1300

Models CIR/HR	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
CIR 500/HR	500	ABS/Exposy	5	550/630	0.5	680 x 520 x 1335	752 x 710 x 1716	95/110	1.1
CIR 600/HR	560	Stainless steel	4	1500/2000	0.75	580 x 689 x 1398	687 x 794 x 2100	165/185	1.7
CIR 900/HR	890	Stainless steel	6	1500/2000	1.0	1250 x 560 x 1330	1385 x 700 x 2030	175/200	2.3
CIR 1300/HR	1230	Stainless steel	8	1900/2400	1.3	1278 x 689 x 1398	1390 x 794 x 2100	250/280	3.1

1 cu ft = 28,3 litres. 1 inch = 25,4 mm.

LABORATORY GROWTH TEST CHAMBERS MODEL GROW-S 360

- Included lights control system day/night program, time period
- Two programmable temperatures: day/night
- Working range temperature from +4° C to +45° C with lights OFF and +12° C to +45° C with lights ON
- Acoustic and visual alarm for maximal temperature
- Alarm for indication of the test end
- LED digital display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,0° C, in the chamber at 40° C
- Stability +/- 0.3° C, in the chamber at 40° C
- Ventilation of the chamber with powerful airflow, distributed uniformly upward
- Microprocessor, control all parameters, ensure a high temperature stability
- Pt 100 probe for the temperature control
- Lights power until 12.000 lux at more than 30° C, lights are switched in 3 different intensity levels

TECHNICAL SPECIFICATIONS FOR MODELS GROW-S 360 AND GROW-S 360/HR

- Internal, thermal safety, glass door
- On/Off retro illuminate switch
- Touch control panel
- Temperature digital control unit with digital display, placed at visual level on the door front, for easy reading
- Programmable timer, set the day/night time period
- Alarm sound stop switch, up to reestablishment of the selected temperature
- Models with big volume ventilator in the chamber, for circulation forced airflow system; distributed uniformly upward, high homogeneity of the temperature inside the chamber
- Pt 100 probe for the temperature control, with resolution of 0,1° C
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Independent cooling system
- Evaporator with automatic defrost
- Internal chamber of stainless steel 18/8 AISI 304
- Shelves grill type, with high regulation, of stainless steel 18/8
- External body of steel, epoxy coated
- External solid door, opens 180°, available to right hand configuration (other options on request)
- Perimeter gasket, heat resistant, made possible a perfect closing of the door and a perfect tight chamber
- Isolation 60 mm, of high density injected polyurethane, CFC and HCFC free
- Base with 4 wheels, for easy movement
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.



GROW-S 360

+4°..+60°

- Light power intensity adjustable until 12.000 lux at more than 30° C, measured in the chamber center
- Lights system placed on sides and frontal doors, avoid the lights thermal increment inside the chamber and allow easy change of tubes
- Lights system with 36W fluorescent tubes with day light type 084, same as sun light spectrum

Models	Capacity in Litres	Internal/External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
GROW-S 360	360	Stainl. steel /Epoxy	4	1360	0.5	600 x 500 x 1200	930 x 730 x 1900	220/250	1.9

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

LABORATORY GROWTH TEST CHAMBERS WITH HUMIDITY CONTROL MODEL GROW-S 360/HR

- Humidity control: working range of 60 to 98% R.H. (+/- 3 ° C), in a temperature range from +19° C to +40° C
- Included lights control system day/night program, time period
- Two programmable temperatures: day/night
- Working range temperature from +4° C to +45° C with lights OFF and +12° C to +45° C with lights ON
- Acoustic and visual alarm for maximal temperature
- Alarm for indication of the test end
- LED digital temperature display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,0° C, in the chamber at 40° C
- Stability +/- 0.3° C, in the chamber at 40° C
- Ventilation of the chamber with powerful airflow, distributed uniformly upward
- Microprocessor, control all parameters, ensure a high temperature stability
- Pt 100 probe for the temperature control
- Lights power until 12.000 lux at more than 30° C, lights are switched in 3 different intensity levels
- Electronic probe for the humidity measurement (4-20 mA) with accuracy of +/- 2% (in models GROW S/ HR)
- Humidity generator by ultrasound, introduce in the chamber microscopic water drops at ambient temperature (in models GROW S/ HR)
- Humidity dry system over cooling generator, by condensation (in models GROW S/ HR)

OPTIONAL ACCESSORIES FOR MODELS GROW-S 360 AND GROW-S 360/HR

- Temperature and /or humidity circular chart recorder 7 days, with independent battery supply
- Printer for temperature and /or humidity record
- Indication for door open, with alarms
- Remote control interface connection RS 485
- Potential free out put for alarm remote control
- Data loggers
- Main power switch, key protected
- Door with lock and key
- Cable port for external instruments



GROW-S 360/HR

+4°..+60°

60%..98%

Models	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m ³
GROW-S 360/HR	360	Stainl. steel /Epoxy	5	1360	0.5	560 x 500 x 1200	500 x 730 x 1840	150/180	1.8

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

GENERAL PURPOSE LABORATORY GROWTH TEST CHAMBERS MODELS GROW

- Included lights control system day/night program, time period
- Two programmable temperatures day/night
- Working range temperature from +4° C to +45° C with lights OFF and +12° C to +45° C with lights ON
- LED digital display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,5° C, in the chamber at 40° C
- Stability +/- 0.5° C, in the chamber at 40° C
- Ventilation of the chamber with powerful airflow, distributed uniformly upward
- Microprocessor, control all parameters
- Pt 100 probe, type A, for the temperature control
- Lights power until 10.000 lux at more than 30° C, lights are switched in different intensity levels

TECHNICAL SPECIFICATIONS FOR MODELS GROW AND GROW/HR

- Solid door with opening aids, and big size handle
- Two side opening door, available right or left hand configuration
- Security lock on the door
- On/Off retro illuminate switch
- Microprocessor, control all parameters with Fuzzy logic, ensure a high temperature stability
- Programmable timer to set the day/night period time
- Models with big volume ventilator in the chamber, for circulation forced airflow system; distributed uniformly upward, high homogeneity of the temperature inside the chamber
- Pt 100 probe, type A, for the temperature control with resolution of 0,1° C
- Cooling gas R134a, CFC and HCFC free, biodegradable
- Hermetic compressor, built over dampers, low noise <48dB
- Independent cooling system
- Evaporator with automatic defrost
- External body of stainless steel 18/8 AISI 304
- Internal chamber of stainless steel 18/8 AISI 304
- Internal shelves, grill type, of plastic coated steel wire
- Perimeter gasket, heat resistant, made possible a perfect closing of the door and a perfect tight chamber
- Isolation 60 mm, of high density injected polyurethane, CFC and HCFC free
- Adjustable feet in height
- Tropical treatment, allow to work until +32° C working area temperature, with 85-90% R.H.



GROW 1300

- Light power intensity adjustable until 10.000 lux at more than 30° C, measured in the chamber center
- Lights system placed on frontal door, alternative according to the needs of the customer can be also placed acc. personalized studies of the lights (eg., in the shelves for growth in agar plates)
- Lights system with 36W fluorescent tubes with day light type 084, same as sun light spectrum

+4°..+45°

Models without humidity system	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m³
GROW600	600	Stainless steel	5	2120	0.75	580 x 689 x 1398	687 x 794 x 2100	155/175	1.75
GROW900	900	Stainless steel	8	2420	1.0	1250 x 560 x 1330	1385 x 700 x 2030	190/215	2.30
GROW1300	1300	Stainless steel	8	2520	1.3	1278 x 689 x 1398	1390 x 794 x 2100	255/290	3.20

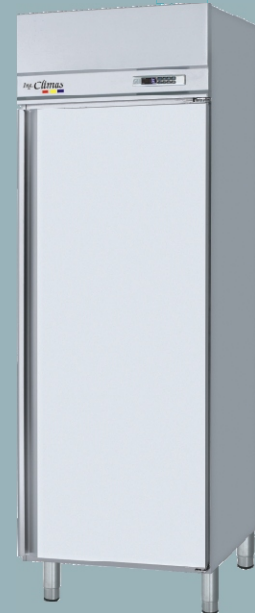
1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

GENERAL PURPOSE LABORATORY GROWTH TEST CHAMBERS WITH HUMIDITY CONTROL MODELS GROW/HR

- Humidity control: working range of 60 to 98% R.H. (+/-3 ° C), in a temperature range from +19° C to +40° C
- Included lights control system day/night program, time period
- Two programmable temperatures: day/night
- Working range temperature from +4° C to +45° C with lights OFF and +12° C to +45° C with lights ON
- Acoustic and visual alarm for maximal temperature
- Alarm for indication of the test end
- LED digital temperature display for temperature and control
- Accuracy +/- 0.1°C, on the display
- Homogeneity +/- 1,5° C, in the chamber at 40° C
- Stability +/- 0.5° C, in the chamber at 40° C
- Ventilation of the chamber with powerful airflow, distributed uniformly upward
- Microprocessor, control all parameters, ensure a high temperature stability
- Pt 100 ,Type A, probe for the temperature control
- Lights power until 10.000 lux at more than 30° C, lights are switched in different intensity levels
- Electronic probe for the humidity measurement (4-20 mA) with accuracy of +/-2% (in models GROW/HR)
- Humidity generator by ultrasound, introduce in the chamber microscopic water drops at ambient temperature (in models GROW/HR)
- Humidity dry system over cooling generator, by condensation (in models GROW/HR)

OPTIONAL ACCESSORIES FOR MODELS GROW AND GROW / HR

- Acoustic and visual alarms for maximal and minimal temperature, probe and power failure; supported with battery
- Indication for door open, with alarms
- Main power switch, key protected
- Temperature and /or humidity circular chart recorder 7 days, with independent battery supply
- Printer for temperature and /or humidity record
- Remote control interface connection RS 485
- Potential free out put for alarm remote control
- Software for PC communication
- Data loggers
- Cable port for external instruments
- Internal plugs inside the chambers, for any gain of test
- Additional lights inside the chamber. Different configurations of lights place under request (top, shelves, sides, back, etc...)



GROW/HR 600



GROW/HR 1300

+4°..+45° 60%..98%

Models with humidity system	Capacity in Litres	Internal/ External	N° of shelves	Power in W	Compressors HP	Internal Dimen. in mm wide x depth x high	External Dimen. in mm wide x depth x high	Weight net/gross	Volume m³
GROW 600/ HR	600	Stainless steel	5	2120	0.75	580 x 689 x 1398	687 x 794 x 2100	155/175	1.75
GROW 800/HR	900	Stainless steel	8	2420	1.0	1250 x 560 x 1330	1385 x 700 x 2030	190/215	2.30
GROW 1300/HR	1300	Stainless steel	8	2520	1.3	1278 x 689 x 1398	1390 x 794 x 2100	255/290	3.20

1 cu ft= 28,3 litres. 1 inch= 25,4 mm.

Laboratory Incubation, Dry and Sterilization Ovens

DRYING OVEN WITH POWERFUL HORIZONTAL AIRFLOW

Model CFO

Model	Capacity in Litres	N° of shelves	Power in W
CFO 20	20	2	500
CFO 40	43	2	1000
CFO 70	71	2	1500
CFO 140	136	2	2300
Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
280 x 280 x 280	645 x 540 x 500	38/47	0.2
350 x 350 x 350	720 x 610 x 575	46/60	0.3
450 x 450 x 350	820 x 625 x 670	53/70	0.5
550 x 550 x 450	930 x 710 x 750	73/90	0.7



PID digital microprocessor temperature control from +5° C over room temperature to +250° C • Models with thermal glass on the door
 • Over heating temperature alarm • Digital time setting 0 to 120 min • LED digital temperature display • Accuracy +/-0.5° C
 • Uniformity +/- 1° C at 100° C • Pt 100 probe for the temperature control • Model with internal noiseless ventilator

NATURAL AIR CONVECTION DRYING OVEN

Model CNO

Model	Capacity in Litres	N° of shelves	Power in W
CNO 20	20	2	600
CNO 40	43	2	800
CNO 70	71	2	1300
CNO 140	136	2	2000
Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
280 x 280 x 280	600 x 520 x 530	30/45	0.2
350 x 350 x 350	7670 x 610 x 600	39/52	0.3
450 x 450 x 350	770 x 610 x 700	50/65	0.5
550 x 550 x 450	870 x 710 x 800	68/85	0.7



PID digital microprocessor temperature control from +5° C over room temperature to +250° C • Models with thermal glass on the door
 • Accuracy +/-1.0° C • Uniformity +/- 4° C at 100° C • Over heating temperature alarm
 • Digital time setting 0 to 120 min • LED digital temperature display • Pt 100 probe for the temperature control

LABORATORY INCUBATOR, NATURAL AIR CONVECTION

Model CNI

Model	Capacity in Litres	N° of shelves	Power in W
CNI 20	20	2	180
CNI 40	43	2	300
CNI 70	71	2	400
CNI 140	136	2	600
Internal Dimensions in mm wide x depth x high	External Dimensions in mm wide x depth x high	Weight net/gross	Volume m ³
280 x 280 x 280	600 x 500 x 550	31/42	0.2
350 x 350 x 350	720 x 560 x 625	45/55	0.3
450 x 450 x 350	820 x 570 x 715	57/75	0.5
550 x 550 x 450	920 x 670 x 825	70/95	0.7



Specific design for incubations at +37° C • PID digital microprocessor temperature control • Models with internal thermal glass door
 PID digital microprocessor temperature control from +5° C above ambient temperature to +60° C • Over heating temperature alarm •
 Digital time setting 0 to 120 min • LED digital temperature display • Accuracy +/- 0.5° C • Uniformity +/- 0.5° C at 40° C •
 Pt100 probe for the temperature control