

PRODUCT CATALOG



CO2 INCUBATOR AIR JACKETED





CO2 INCUBATOR AIR JACKETED BGI1Y1 TO BGI1Y8

CO2 INCUBATOR



With Infrared CO2 Sensor

- Faster CO2 concentration Restoration Speed.
- Infrared sensor can keep CO2 concentration stability and uniformity when door open frequently.
- Polished stainless-steel chamber, semicircular arcs at corners for easy cleaning(except
- water-jacketed type), and the space between the shelves in the chamber is adjustable.
- Microorganism filter at inlet provides 99.99% filtration of bacteria and dust ($\Phi{<}0.3\mu m)$
- and supplies pure CO2 into the incubator.
- Door temperature controller prevents dewfall on glass door of incubator effect

Model	BGI1Y1	BGI1Y2	BGI1Y3	BGI1Y4
Old Model	BCAJ-8401	BCAJ-8402	BCAJ-8403	BCAJ-8404
Electrical Requirement		220\	/ 50Hz	
Power Consumption	450W 500W 750W			50W
Heating Method		Air-jacketed	l, PID Control	
Temperature Range		RT+5	~55°C	
Ambient Temperature		+5~	30°C	
Temperature Stability		±0	.2°C	
CO ₂ Range	0~20% V/V			
CO ₂ Control Resolution	±0.1%(IR sensor)			
CO ₂ Recovery	(Door open 30s, recovery to 5%) ≤ 3min			
Temperature Recovery	(Door open 30s, recovery to 37°C) ≤ 8min			
Humidity Method	Natural vaporization ≥ 90%			
Chamber Volume	50L 80L 150L 190L			
Interior Dimension (WxDxH)mm	400x285x350	400x450x500	480x530x610	520x530x690
Exterior Dimension (WxDxH)mm	580x450x730 590x657x870 670x710x950 708x710x103			
Shelves	2(pcs) 3(pcs)			
Sterilization Method	UV Sterilizer			
Alt Name	CO2 Incubator			

Model	BGI1Y5	BGI1Y6	BGI1Y7	BGI1Y8
Old Model	BCAJ-8405	BCWJ-8501	BCWJ-8502	BCWJ-8503
Electrical Requirement	220V 5	0Hz	-	-
Power Consumption	950W	250W	/ 680W	950W
Heating Method	Air-jacketed, PID Control Water-jacketed, PID Control			ontrol
Temperature Range	RT+5~55℃			
Ambient Temperature	+5~30°C			
Temperature Stability	±0.2°C ±0.1°C			
CO₂ Range	0~20% V/V			
CO₂ Control Resolution	±0.1%(IR sensor)			
CO₂ Recovery	(Door open 30s, recovery to 5%) ≤ 3min			

Temperature Recovery	(Door open 30s, recovery to 37°C) ≤ 8min			
Humidity Method	Natural vaporization ≥ 90%			
Chamber Volume	240L 26L 80L 150L			150L
Interior Dimension (WxDxH)mm	600x630x670 290x290x310 400x400x500 5		500x500x650	
Exterior Dimension (WxDxH)mm	788x837x940	400x410x544	550x520x764	650x615x914
Shelves	3(pcs) 2(pcs) 3(pcs)			
Sterilization Method	UV Sterilizer			
Alt Name	CO2 Incubator			

FEATURES

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- Microorganism filter at inlet provides 99.99% filtration of bacteria and dust (Φ <0.3 μ m) and supplies pure CO2 into the incubator.
- Door temperature controller prevents dewfall on glass door of incubator effectively.
- Independent audible and visible temperature-limiting alarm system ensures experiments run safely.(Option)
- Alarm function for temperature difference, CO2 over concentration and concentration difference, door open time, UV working status.
- Auto-controller of fan speed to prevent damage to the samples.
- UV light system for periodic sterilization of chamber.
- PID controller with LCD screen ensures precise and reliable control.
- Two-layer stacking available.

Options

- RS-485 Connector: easy to download and save all the data via RS-485 into computer, and identify problems in time.
- High effective filter provides filtration of bacteria and dust.
- CO2 pressure releasing valve
- Humidity display system
- Printer(Nested)
- · Temperature-limiting alarm system
- · Cooling system

CO2 INCUBATOR AIR JACKETED BEV1M1 BEV1M2

CO2 INCUBATOR



Microcomputer intelligent PID control technology, to maintain accurate and constant temperature and with timing, also with ultra-high temperature alarm function.

Internally equipped with a UV germicidal lamp, which can effectively kill bacteria, fungi, mycoplasma and other microorganisms

The unique air circulation, soft wind, to ensure temperature uniformity Gas distribution type, CO2 recovery time ≤ concentration x 1.2Min Adopt a door heating control system,which can effectively avoid frost in glass doors.

The design of the double doors, built-in tempered glass viewing window, clear observation of the locker, shelf up and down pitch adjustable. Cavity warm-up technology and outdoor heating

SPECIFICATIONS

Model	BEV1M1	BEV1M2		
Old Model	BCAJ-101	BCAJ-102		
Temp range (°C)	RT	+5~60		
Accuracy (°C)	4	-0.1		
Fluctuation (%)	4	-0.5		
CO2 control range	0^	·20%		
Voltage (V)		220		
Power (KW)	C	0.35		
Inner size (mm) (H*W*D)	500x400x400/80L	650x550x500/160L		
Overall dimension (mm) (H*W*D)	835x550x550	985x700x650		
Packing size (mm) (H*W*D)	955x630x630	1105x780x730		
Net weight (KG)	36	57		
Shipping weight (KG)	40	62		
Alt Name	Gas distribution typ	Gas distribution type, Stainless steel tank		

ACCESSORIES FOR PURCHASE

No	Name
1	Intelligent temperature controller
2	Independent temperature controller





FEATURES

Microcomputer intelligent PID control technology, to maintain accurate and constant temperature and with timing, also with ultrahigh temperature alarm function.

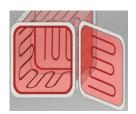
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Gas distribution type, CO2 recovery time ≤ concentration x 1.2Min

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The design of the double doors, built-in tempered glass viewing window, clear observation of the locker, shelf up and down pitch adjustable.





Cavity warm-up technology and outdoor heating



Airflow circulation system



Stainless steel inner



Integrated humidification design



UV sterilization system



Rear double fuse and interface

Operation chart:



Press the power switch



Press the function button



Set the concentration of CO2



Set up to complete the automatic of the machine, arrive time will be an automatic alarm, and then stop running.

APPLICATIONS

It is an advanced instrument applied to cells, tissues, and bacterial culture. It is the key equipment to carry out essential immunology, oncology, genetics and bio-engineering. Widely used in microorganisms, agricultural science, drug research and production.

CO2 INCUBATOR AIR JACKETED BGI1X1 TO BGI1X6

CO2 INCUBATOR



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- Polished stainless-steel chamber, semicircular arcs at corners for easy cleaning, and the space between the shelves in the chamber is adjustable.
- Microorganism filter at inlet provides 99.99% filtration of bacteria and dust (Φ <0.3 μ m) and supplies pure CO2 into the incubator.
- Door temperature controller prevents dewfall on glass door of incubator effectively.
- \bullet Independent audible and visible temperature-limiting alarm system ensures experiments run safely.

Model	BGI1X1	BGI1X2	BGI1X3
Old Model	BCAJ-6801	BCAJ-6802	BCAJ-6803
Chamber Volume	40L	80L	155L
Temperature Range	RT+5°C ~55°C		
Electrical Requirement	220V 50Hz		

Power Consumption	350W	500W	750W	
Ambient Temperature		+5~30°C		
Heating Method		Air-jacketed, PID Control		
Temperature Resolution		0.1		
Temperature Stability		±0.1°C		
Temperature Uniformity (37°C)		±0.3°C		
CO ₂ Range		0~20% V/V		
CO2 Control Resolution		±0.1%(IR sensor)		
CO₂ Recovery	(Door o	pen 30s, recovery to 5%)) ≤ 3min	
Temperature Recovery	(Door op	oen 30s, recovery to 37°C		
Humidity Method	1	Natural vaporization ≥ 90°	%	
Shelves	2(բ	ocs)	3(pcs)	
Interior Dimension (WxHxD)mm	400x286x350	400x450x500	480x530x610	
Exterior Dimension (WxHxD)mm	590x440x576	590x687x790	670x767x880	
Sterilization Method	18hrs	18hrs (90°C moist heat disinfection)		
Alt Name		CO2 Incubator		
Model	BGI1X4	BGI1X5	BGI1X6	
Old Model	BCAJ-6804	BCAJ-6805		
Chamber Volume	190L	240L	500L	
Temperature Range		RT+5°C ~55°C		
Electrical Requirement		220V 50Hz		
Power Consumption	750W	950W	1450W	
Ambient Temperature		+5~30°C		
Heating Method		Air-jacketed, PID Control		
Temperature Resolution		0.1		
Temperature Stability		±0.1°C		
Temperature Uniformity (37°C)		±0.3°C		
CO ₂ Range		0~20% V/V		
CO2 Control Resolution		±0.1%(IR sensor)		
CO₂ Recovery	(Door o	(Door open 30s, recovery to 5%) ≤ 3min		
Temperature Recovery	(Door op	(Door open 30s, recovery to 37°C) ≤ 8min		
Humidity Method	N	latural vaporization ≥ 90%	6	
Shelves		3(pcs)		
nterior Dimension (WxHxD)mm	520x530x690	600x630x670	700x650x1100	
Exterior Dimension (WxHxD)mm	708x710x1030	788x837x940	880x860x1500	



Sterilization Method

Alt Name





18hrs (90°C moist heat disinfection)

CO2 Incubator

FEATURES

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- Microorganism filter at inlet provides 99.99% filtration of bacteria and dust (Ф<0.3µm) and supplies pure CO2 into the incubator.
- Door temperature controller prevents dewfall on glass door of incubator effectively.
- Independent audible and visible temperature-limiting alarm system ensures experiments run safely.
- Alarm function for temperature difference, CO2 over concentration and concentration difference, door open time, UV working status
- Auto-controller of fan speed to prevent damage to the samples.
- PID controller with LCD screen ensures precise and reliable control.
- Two-layer stacking available.
- UV light system for periodic sterilization of chamber.

Options:

- RS485 Connector: Easy to download and save all the data via RS485 into computer, and identify problems in time.
- High effective filter provides filtration of bacteria and dust.
- CO2 pressure releasing valve.
- Humidity display system.

CO2 INCUBATOR AIR JACKETED BER1DG1 TO BER1DG4

CO2 INCUBATOR



- 1. Full color 7.0 inch touch screen.
- 2. Standard Germany infrared high temperature and high precision CO2 concentration sensor.
- 3. Has three levels of authority management function, with high temperature 180°C sterilization function.
- 4. Six side heating air jacket heating system, while the design of a reasonable air duct mechanism, good temperature uniformity, heating, rapid return temperature. 5. Adopts chassis reservoir design with large evaporation area and fast moisture
- return. With a door heating device, can avoid the inner door glass condensation. The product is equipped with high efficiency filter and intake filter to ensure the cleanliness of the air in the working room.

Model	BER1DG1	BER1DG2	BER1DG3	BER1DG4
Heating System		Air jacket		
Performance				
Temp Range		RT+5~55℃		
Temp Resolution Ratio		0.1℃		
Temp Fluctuation		±0.1°C		
Temp Uniformity	±0.3°C			
CO2 Sensor	Infrared type/measuring range: 0.0~21.0%			
CO2 Control Range	0.0~20.0% 0.0~21.0%			0.0~21.0%
CO2 Control Accuracy	±0.1%			

Construction				
Inner Chamber	SUS304 stainless steel studio			
Outer Shell	Cold-rolled steel plate, surface electrostatic spraying			
Insulation Layer		Polyurethane		
Heater		Heati	ng sheet	
Humidity Method		Humidifying pan	evaporates naturally	
Rated Power	0.4kW	0.5kW	0.6kW	0.7kW
Gas Vent		Φ27mm rear (wit	h test hole function)	
Other		HEP	A filter	
Controller				
Temp Control Mode		Intelligent fu	ızzy PID control	
Temp Setting Mode		Touc	h screen	
Timer		0~9999 minutes (wi	th timing wait function)	
Operation Function	Fix	ed value operation, tim	ed operation, automation	stop
Sterilization Function	Ultraviolet ste	rilization, wet heat ste	rilization, high temperat	ture sterilization
Additional Function	Sensor deviation correction, temperature overshoot self-tuning, internal parameter locking, power off parameter memory			
Sensor	PT100, water level sensor, CO2 sensor			
Safety Device	High temperature alarm			
Specification				
Inner Chamber(W*L*Hmm)	345*375*388	404*439*454	509*472*632	540*500*670
Exterior Size(W*L*H mm)	500*500*655	585*585*766	593*746*842	629*791*893
Packing Size(W*L*H mm)	620*620*855	705*705*966	713*866*1042	749*911*1093
Inner Volume	50L	80L	150L	180L
Shelf Number	4	5	6	7
Load Per Rack		1	.5kg	
Shelf Space	35mm			
Power Supply (50/60 Hz) Rated Current	AC220V/1.8A	AC220V/2.3A	AC220V/2.7A	AC220V/3.2A
NW/GW (kg)	55/70	77/85	93/108	115/130
Shelf			2	
Partition Rack			4	
Optional Accessories		Shelf	, printer	
Alt Name	CO2 Incubator			





APPLICATIONS

Widely used in microbiology, medicine, pharmaceutical, environmental protection, food, animal husbandry and other scientific fields of research and production. It is commonly used in the research fields of cell dynamics, collection of mammalian cell secretions, carcinogenic or toxicological effects of various physical and chemical factors, research and production of antigens, culture of hybridoma cells for antibody production, stem cells, tissue engineering, drug screening and other research fields.

CO2 INCUBATOR AIR JACKETED BGI1W1 TO BGI1W5

CO2 INCUBATOR



With Imported Infrared CO2 Sensor

- Touch screen controller, 72-hour machine operation record query function to help user tracking abnormal conditions and trace historical operation information.
- Faster CO2 concentration Restoration Speed.
- Infrared sensor can keep CO2 concentration stability and uniformity when door open frequently.
- Polished stainless-steel chamber, semicircular arcs at corners for easy cleaning(except water-jacketed type), and the space between the shelves in the chamber is adjustable.
- Microorganism filter at inlet provides 99.99% filtration of bacteria and dust $(\Phi < 0.3 \mu m)$ and supplies pure CO2 into the incubator.
- Door temperature controller prevents dewfall on glass door of incubator effect

Model	BGI1W1	BGI1W2	BGI1W3	BGI1W4
Old Model	BCAJ-8201	BCAJ-8202	BCAJ-8203	BCAJ-8204
Electrical Requirement	220V 50Hz			
Screen		7" Touc	h screen	
Power Consumption	350W 500W 700W 750W			
Heating Method		Air-jacketed	, PID Control	
Temperature Range		RT+5	~55°C	
Ambient Temperature		+5~	30°C	
Temperature Stability	±0.1°C			
CO ₂ Range	0~20% V/V			
CO ₂ Control Resolution	±0.1%(IR sensor)			
CO ₂ Recovery	(Door open 30s, recovery to 5%) ≤ 3min			
Temperature Recovery	(Door open 30s, recovery to 37°C) ≤ 8min			
Humidity Method		Natural vapor	ization ≥ 90%	
Chamber Volume	40L	80L	155L	190L
Interior Dimension (WxDxH)mm	400x286x350	400x450x500	480x530x610	520x530x690
Exterior Dimension (WxDxH)mm	590x440x576	590x687x790	670x770x880	708x710x880
Shelves	2(pcs) 3(pcs)			
Sterilization Method	90°C moist heat disinfection (18hrs)+UV Sterilizer			
Alt Name	CO2 Incubator			
Model	PCI1W5			

Model	BGI1W5
Old Model	BCAJ-8205
Electrical Requirement	220V 50Hz
Screen	7" Touch screen
Power Consumption	1000W
Heating Method	Air-jacketed, PID Control
Temperature Range	RT+5~55°C
Ambient Temperature	+5~30°C
Temperature Stability	±0.1°C
CO ₂ Range	0~20% V/V

CO ₂ Control Resolution	±0.1%(IR sensor)	
CO ₂ Recovery	(Door open 30s, recovery to 5%) ≤ 3min	
Temperature Recovery	(Door open 30s, recovery to 37°C) ≤ 8min	
Humidity Method	Natural vaporization ≥ 90%	
Chamber Volume	233L	
Interior Dimension (WxDxH)mm	600x630x670	
Exterior Dimension (WxDxH)mm	790x840x940	
Shelves	3(pcs)	
Sterilization Method	90°C moist heat disinfection (18hrs)+UV Sterilizer	
Alt Name	CO2 Incubator	











FEATURES

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- Door temperature controller prevents dewfall on glass door of incubator effectively.
- Independent audible and visible temperature-limiting alarm system ensures experiments run safely.
- Alarm function for temperature difference, CO2 over concentration and concentration difference, door open time, UV working status.
- Auto-controller of fan speed to prevent damage to the samples.
- 90°C high temperature and humidity streilization function.(RHP series)

Options

- RS485 Connector: easy to download and save all the data via RS-485 into computer, and identify problems in time.
- High effective filter provides filtration of bacteria and dust.
- CO2 pressure releasing valve.
- Humidity display system.
- Printer(Nested).
- Temperature-limiting alarm system.

CO2 INCUBATOR AIR JACKETED BEV1D1 BEV1D2

CO2 INCUBATOR

Use in cell culture, microbiology research, pathology academic, life science fields;

CO₂ Incubator succeeded in creating a natural growth of the same simulation environment, Chamber heating technology to provide a stable temperature, the professional-grade IR CO₂ sensor, more accurately detect CO₂ concentration;

Equipped with UV sterilization lamp, effectively prevent cross-contamination of cultivation

IQ, OQ, PQ and other related certification services.

Aus. AS2064 certification. CE certification. Two-year warranty period.



Chamber Preheating Technology

Chamber preheating technology is the heating element evenly distributed in the interior, pre-heat the cavity and inner wall, and then through the heat transfer and forced-fan convection, so that the temperature of each cavity can accurately reach and maintain setting value, thus ensuring uniform distribution of the cavity temperature.

Chamber of six surface heating, in which the glass door is in possession of the heating system to prevent frost of the glass door.

CO₂ Incubator with low energy consumption, heat not easily lost. Save energy, enabling customers to use the cost reduction.

Clean Air Circulation System

Perfect forced convection of the air circulation system to ensure the shortest \boldsymbol{t}

Model	BEV1D1	BEV1D2	
Old Model	BCAJ-201	BCAJ-202	
Convection Mode	Forced Convection		
Control System	Microprocessor PID		
Temp. Range (°C)	RT+5°C~55°C		
Temp. Accuracy (°C)	0.1		
Temp. Fluctuation (37°C)	±C).5	
Temp. Uniformity (37°C)	±0.8		
CO ₂ Range	0~20%		
CO ₂ control way	IR sensor (±0.1%)		
CO ₂ Recovery time	(after 30 seconds door opening to 5%) ≤2 minutes		
Temp. Recovery time	(after 30 seconds door opening to 37°C) ≤8 minutes		
Relative humidity	natural evaporation >95% (with Temp. display)		
Working environment	Ambient temperature: 10~30°C, Humidity<70%		
Insulation materials	Imported environmental protection type material		
External Dimensions (HxWxD) mm	755x550x547 905x610x687		
Internal Dimensions (HxWxD) mm	500x400x400	650x460x540	
Interior Volume (L)	80	160	
Interior materials	SUS304 stainless steel		
Shelves number	2	3	
Power supply voltage	Single phase AC220V/50Hz		
Standard power (W)	500	650	
Net Weight (KG)	35	55	
Shipping Weight (KG)	38	58	
Shipping Dimensions (HxWxD) mm	880x630x635	1030x690x695	
Alt Name	CO2 Inc	cubator	









ACCESSORIES FOR PURCHASE

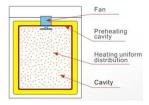
No	Name
1	portable printer
2	Air interface
3	software
4	High efficiency gas filter system (efficiency is up to 99.998%=0.3um)

FEATURES

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Clean Air Circulation System

Perfect forced convection of the air circulation system to ensure the shortest temperature recovery time after opening. With internationally renowned brands with a cooling fan (no maintenance, high durability), the experiment and the culture effect to reach ideal extent

Air circulation system sufficiently to ensure the continuous stability of the temperature of the working chamber. Customer set temperature is reached, given the perfect environment for sample culture;

CO2 inlet valve with a filter device to ensure cleanliness of the cavity gas;

Equipped with a UV sterilization system in the chamber, regular basis to eliminate the cavity contaminating microorganisms effectively prevent cross-contamination during culture.



Clean airflow circulation system

Excellent Imported Temperature Sensor, Humidity Sensor, CO2 Sensor.

Imported industrial temperature sensor PT100, short response time, low self-heating temperature.

Imported humidity sensor, aerospace material, no maintenance, precise humidity control level.

Imported IR CO_2 concentration sensor with automatic temperature compensation, allows high humidity (>98%) long-term use of the environment, high accuracy, low drift, and the CO_2 concentration can be fast recovery characteristics.



Pt100temperature sensor



Precise humidity sensor



CO2 density sensor

Programmable PID Control

Integrated, dot-matrix LCD display, Chinese and English subtitles, all the parameters display clearly at a glance. Display parameters: Temperature setting value, Temperature measured value, Humidity, CO₂ setting value, CO₂ measured value, Heating, Fast input, Slow input, Sterilization, run/stop.

Adaptive PID controllers precisely control the temperature, prevent temperature soaring, keep the working room temperature stable and uniform.

User password protection, built-in multifunctional memory menu, connect to multiple devices (up to 16 units) by RS485 interface at the same time, real-time monitoring.

Set operations with beep tips.

Remote-controlled operation, with programmable software (optional).



Power socket and Rs485 interface

Inside Water Pan Humidification Technology

The original water pan and liner integrate a humidifier design, so that the water quickly atomizes.

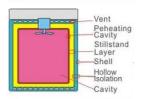
Soft airflow with water vapor of the water pan out the cavity, make humidity up and recover, to ensure that the culture needs saturated water.

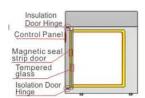


Isolation Technology

Inner isolation door design, take full account of customers in the observation of cavity samples, ensure the consistency of the cavity temperature.

Based on the effective use of heat design, complete isolation between the liner and shell to avoid energy loss due to heat transfer. Adopt imported high-density thermal insulation material wrapped liner, effective heating insulation and stillstand. Good silicone door seal, with the magnetic outside door design, ensure excellent sealability.





CO2 INCUBATOR AIR JACKETED BFN1G1 TO BFN1G6

CO2 INCUBATOR

CO2 incubators are widely used in scientific research to grow and maintain cell cultures. A Heal Force CO2 incubator provides you with unsurpassed natural simulation to ensure optimum growth conditions for your culture at all time. That's why they become the first choice of researchers in fields of application include tissue engineering, in vitro fertilization, neuroscience, cancer research and other mammalian cell research.



Safe for cultivation Cancer research

Cell cultivation in particular is a highly sensitive process in which bacteria, viruses, fungal spores and mycoplasmas can destroy valuable cultures or distort test results, causing more work. Heal Force solves this problem using a unique design and effective method to ensure sterile conditions.



CO2 Incubator Air Jacketed BFN1G1

Easy-to-clean design:

The cleaning process is significantly simplified by Heal Force's unique, seamless, deep-drawn interior chamber, which reduces any areas where contamination could accumulate. Heal Force incubators offer the best usable-space-to-volume ratio due to the total absence of any additional fittings in the interior chamber.

Coved comers

Inlet filter for CO2 supply:

All gas injection lines are filtered via HEPA filter to remove impurities and contaminants before being injected into the chamber. The HEPA filter is able to filter particles larger than 0.3um at 99.998%.

CO2 Inlet filter

Model	BFN1G1	BFN1G3	BFN1G4	
Old Model	BCAJ-301	BCAJ-302	BCAJ-303	
Construction				
Exterior dimensions (WxDxH, mm/inch)	637x762x909 (25.1x30x35.8)	615x768x865 (24.2x30.2x34.1)	910x763x795 (35.8x30x34.1)	
Interior dimensions (WxDxH, mm/inch)	470x530x607 (18.5x20.8x23.9)		600x588x600 (23.6x23.1x23.6)	
Interior Volume (L/cu.ft)	151L/5.3 cu.ft.		212L/7.5 cu.ft.	
Net Weight	80kg/176lbs	75kg/165lbs	95kg/209lbs	
Interior Material	Type 304, mirror finish, stainless steel			
Exterior Material	Electrolyzed galvanization steel, powder coated			
Inner door	3 inner doors standard One inner door standard			
Temperature				
Heating method	Direct Heat & Air Jacket (DHA)			
Temp. control system	Microprocessor			
Temp. sensor	PT1000			
Temp. range	5°C above ambient temperature to 50°C			
Temp. uniformity	±0.2°C ±0.3°C		±0.3°C	
Temp. stability	±0.1℃			
CO2				

Inlet pressure		0.1 MPa	
C02 control system	Microprocessor		
C0 ₂ sensor	Thermal conductivity		
CO ₂ range	0 to 20%		
CO ₂ stability			
-	±0.1%		
Humidity			
Humidifying system	Special designed water reservoir		
Relative humidity	≥95%		CI
Water reservoir volume	3L	4L	6L
Shelves	422.445.4	467.475)	500 510 (22.2.204)
Shelf dimensions (WxD, mm/inch)		16.7x17.5)	590x510 (23.2x20.1)
Shelf construction		e 304, mirror finish, stainless	
Standard/Maximum shelves	3,	10	3, 12
Fittings			
Access port	Standard	· ·	ional
Air filter	0.	3µm, Efficiency:99.998% (for 0	CO ₂)
Remote alarm contacts		Standard	
De-contamination	90°C moist heat disinfection	UV	lamp
Rated power	60	0W	700W
Power supply	220V/	50Hz (standard), 110V/60Hz (optional)
Alarm system	Power interruption * High/Low temperature * Deviation of CO ₂ * RH * Door ajar * Independent overheat protection		
Data output	RS232		-
Alt Name	CO2 Incubator		
Model	BFN1G5		DCN1 CE
	5, 11255		BFN1G6
Construction	2.112.00		PLINTRO
ConstructionExterior dimensions (WxDxH, mm/inch)		780x820x944 (30.7x32.3x37	
	7	780x820x944 (30.7x32.3x37 507x583x670 (23.9x22.9x26	.2)
Exterior dimensions (WxDxH, mm/inch)	7	· · · · · · · · · · · · · · · · · · ·	.2)
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)	7	507x583x670 (23.9x22.9x26	.2)
Exterior dimensions (WxDxH, mm/inch) Interior dimensions (WxDxH, mm/inch) Interior Volume (L/cu.ft)	-	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft.	.2) .4)
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net Weight	Typ	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs	.2) .4) steel
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior Material	Typ	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless	.2) .4) steel
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior Material	Typ Electroly	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless	.2) .4) steel der coated
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door	Typ Electroly	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door Temperature	Typ Electroly	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs De 304, mirror finish, stainless yzed galvanization steel, powo	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating method	Typ Electroly	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs Direct Heat & Air Jacket (DHA	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control system	Typ Electroly 3 Shelves	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs oe 304, mirror finish, stainless yzed galvanization steel, powo Direct Heat & Air Jacket (DHA Microprocessor	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. range	Typ Electroly 3 Shelves	507x583x670 (23.9x22.9x26 240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, powo Direct Heat & Air Jacket (DHA Microprocessor	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. rangeTemp. uniformity	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs Direct Heat & Air Jacket (DHA) Microprocessor PT1000 B07x583x670 (23.9x22.9x26) 240L/8.5 cu.ft. 80kg/176lbs Stainless PAIDE STAINL	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. range	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, powc Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. rangeTemp. rangeTemp. uniformityTemp. stability CO2	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, powc Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. sensorTemp. rangeTemp. uniformityTemp. stability CO2Inlet pressure	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, poword Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C ±0.1°C 0.1 MPa	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. rangeTemp. uniformityTemp. stability CO2Inlet pressureCO2 control system	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, powo Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C ±0.1°C 0.1 MPa Microprocessor	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. sensorTemp. uniformityTemp. stability CO2Inlet pressureCO2 control systemCO2 sensor	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, poword Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C ±0.1°C 0.1 MPa Microprocessor Thermal conductivity	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. rangeTemp. uniformityTemp. stability CO2Inlet pressureCO2 control systemCO2 sensorCO2 range	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C ±0.1°C 0.1 MPa Microprocessor Thermal conductivity 0 to 20%	.2) .4) steel der coated 6 Shelves
Exterior dimensions (WxDxH, mm/inch)Interior dimensions (WxDxH, mm/inch)Interior Volume (L/cu.ft)Net WeightInterior MaterialExterior MaterialInner door TemperatureHeating methodTemp. control systemTemp. sensorTemp. uniformityTemp. stability CO2Inlet pressureCO2 control systemCO2 sensor	Typ Electroly 3 Shelves	240L/8.5 cu.ft. 80kg/176lbs be 304, mirror finish, stainless yzed galvanization steel, poword Direct Heat & Air Jacket (DHA Microprocessor PT1000 above ambient temperature to ±0.2°C ±0.1°C 0.1 MPa Microprocessor Thermal conductivity	.2) .4) steel der coated 6 Shelves

Humidifying system	Special designed water reservoir	
Relative humidity	≥95%	
Water reservoir volume	3L	
Shelves		
Shelf dimensions (WxD, mm/inch)	423x445 (16.7x17.5)	
Shelf construction	Type 304, mirror finish, stainless steel	
Standard/Maximum shelves	3, 12	
Fittings		
Access port	Standard	
Air filter	0.3µm, Efficiency:99.998% (for CO₂)	
Remote alarm contacts	Standard	
De-contamination	90°C moist heat disinfection	
Rated power	735W	
Power supply	220V/50Hz (standard), 110V/60Hz (optional)	
Alarm system	Power interruption * High/Low temperature * Deviation of CO ₂ * RH * Door ajar * Independent overheat protection	
Data output	RS232	
Alt Name	CO2 Incubator	









FEATURES BFN1G1 BFN1G5

Easy-to-clean design:

The cleaning process is significantly simplified by Heal Force's unique, seamless, deep-drawn interior chamber, which reduces any areas where contamination could accumulate. Heal Force incubators offer the best usable-space-to-volume ratio due to the total absence of any additional fittings in the interior chamber.



Coved comers

Inlet filter for CO2 supply:

All gas injection lines are filtered via HEPA filter to remove impurities and contaminants before being injected into the chamber. The HEPA filter is able to filter particles larger than 0.3um at 99.998%.



CO2 Inlet filter

Absolutely condensation-free, even at high air humidity level:

The high air humidity prevents cell cultures from drying out and also keeps the osmolarity constant in the culture medium. With our CO2 incubators, you can work with air humidity up to 95% while the internal walls remain completely dry (In order to prevent contamination, however, no condensation must occur). The patented tilted water reservoir system keeps the air humidity absolutely stable.



Water reservoir

Optimum temperature control:

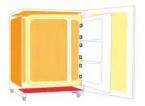
A reliable air jacketed heating system combined with PT1000 temperature sensors ensures high precision with homogenous heat distribution in the interior.

Outstanding dynamics ensure short recovery times and balance out any fluctuations caused by door open for CO2 incubators. This provide reliable protection at any time, particularly for sensitive cultures.

Note: The main heater provides precise temperature control.

The bottom heater warms the distilled water and ensures chamber humidity.

The outer door heater prevents condensation on the inner door and facilitates quick temperature recovery after door openings.



Divided, inner glass door:

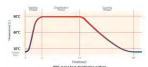
Three inner glass doors maintains stable climatic conditions, minimizes any changes to the humidity, heat and gas concentration, shortens recovery times significantly and also further reduces the risk of contamination.



with 3 inner glass doors (standard)

90°C moist heat disinfection:

They are equipped with 90 C moist heat disinfection system. The validated overnight sterilization cycle ensures reliable destruction of germs that could interfere with your work and requires no extra work, such as removal of interior fittings. Mycoplasma is 100% eliminated in a routine disinfection cycle.



FEATURES BFN1G3 BFN1G4

Easy-to-clean design:

The cleaning process is significantly simplified by Heal Force's unique, seamless, deep-drawn interior chamber, which reduces any areas where contamination could accumulate. Heal Force incubators offer the best usable-space-to-volume ratio due to the total

absence of any additional fittings in the interior chamber.



Coved comers

Inlet filter for CO2 supply:

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CO2 Inlet filter

Absolutely condensation-free, even at high air humidity level:

The high air humidity prevents cell cultures from drying out and also keeps the osmolarity constant in the culture medium. With our CO2 incubators, you can work with air humidity up to 95% while the internal walls remain completely dry (In order to prevent contamination, however, no condensation must occur). The patented tilted water reservoir system keeps the air humidity absolutely stable.



Water reservoir

Optimum temperature control:

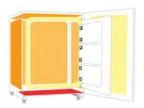
A reliable air jacketed heating system combined with PT1000 temperature sensors ensures high precision with homogenous heat distribution in the interior.

Outstanding dynamics ensure short recovery times and balance out any fluctuations caused by door open for CO2 incubators. This provide reliable protection at any time, particularly for sensitive cultures.

Note: The main heater provides precise temperature control.

The bottom heater warms the distilled water and ensures chamber humidity.

The outer door heater prevents condensation on the inner door and facilitates quick temperature recovery after door openings.



Ultraviolet disinfection:

A long-life ultraviolet lamp is equipped at the inner back of these models to sterilize chamber air and water in the reservoir to maintain contamination-free conditions within the chamber. To take maximum effect of disinfection, the wavelength of UV light is kept at 254nm.



UV Lamp

FEATURES BFN1G6

Easy-to-clean design:

The cleaning process is significantly simplified by Heal Force's unique, seamless, deep-drawn interior chamber, which reduces any areas where contamination could accumulate. Heal Force incubators offer the best usable-space-to-volume ratio due to the total absence of any additional fittings in the interior chamber.



Coved comers

Inlet filter for CO2 supply:

All gas injection lines are filtered via HEPA filter to remove impurities and contaminants before being injected into the chamber. The HEPA filter is able to filter particles larger than 0.3um at 99.998%.



CO2 Inlet filter

Absolutely condensation-free, even at high air humidity level:

The high air humidity prevents cell cultures from drying out and also keeps the osmolarity constant in the culture medium. With our CO2 incubators, you can work with air humidity up to 95% while the internal walls remain completely dry (In order to prevent contamination, however, no condensation must occur). The patented tilted water reservoir system keeps the air humidity absolutely stable.



Water reservoir

Optimum temperature control:

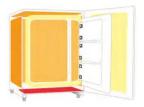
A reliable air jacketed heating system combined with PT1000 temperature sensors ensures high precision with homogenous heat distribution in the interior.

Outstanding dynamics ensure short recovery times and balance out any fluctuations caused by door open for CO2 incubators. This provide reliable protection at any time, particularly for sensitive cultures.

Note: The main heater provides precise temperature control.

The bottom heater warms the distilled water and ensures chamber humidity.

The outer door heater prevents condensation on the inner door and facilitates quick temperature recovery after door openings.



Divided, inner glass door:

Six half-size sealed inner glass doors and shelves are optional. This makes it possible for several users to work with the same equipment.



with 6 half-size inner glass doors and shelves (optional)

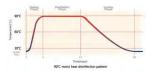
Auto-start function:

The auto-start function, which considerably simplifies the equipment's operation, contains the incubator's automatic start-up and the measuring system's calibration. The thermal conductivity CO2 sensor has its baseline automatically reset without manual adjustment. The incubator can be loaded immediately after the start-up routine is completed.



90°C moist heat disinfection:

They are equipped with 90 C moist heat disinfection system. The validated overnight sterilization cycle ensures reliable destruction of germs that could interfere with your work and requires no extra work, such as removal of interior fittings. Mycoplasma is 100% eliminated in a routine disinfection cycle.



CO2 INCUBATOR AIR JACKETED BFN1K1 BFN1K2

TRI-GAS INCUBATOR

Tri-gas incubator, providing precise temperature, CO2, O2 control as well as high humidity, is widely used in scientific research to grow and maintain cell cultures. Typical fields of application include tissue engineering, in vitro fertilization, neuroscience, cancer research and other mammalian cell research.

- A. Stainless steel chamber with easy-to-clean coved corners reduces contamination-prone surface.
- B. The turbulence-free chamber ventilation improves CO2, O2, humidity and temperature uniformity.
- C. Easy-removable, replaceable shelves make chamber cleaning a rapid and efficient process.
- D. Standard three inner glass doors minimize recovery time and the risk of contamination.
- E. The design of water reservoir replacing water tray, allows rapid recovery of optimal humidity.
- F. Water level alarm(audible and visible) alerts users when the water reservoir needs to be refilled.
- G. Integrated electric siphon pump facilitates drainage operation.



Contamination prevention:

 90°C disinfection routine decontaminates the entire interior of the chamber while causes less damage to electronic components

In independent tests, a routine disinfection circle is proven to completely eliminate a variety of contaminants including mycoplasma

A completely smooth inner casing with rounded corner reduces the possibility of hidden contamination. Easy-removable, replaceable shelves make chamber cleaning a rapid and efficient process.

90° moist heat decontamination

Condensation control

Temperature control:

Direct heating enables rapid temperature recovery while air jacket provides isol

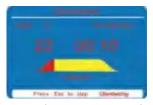
Model	BFN1K1	BFN1K2	
Old Model		BIBD-207	
Temp. Control Method	Direct hea	at & air jacket	
Temp. Control sensor	Pt	1000	
Temp. Range (°C)	Amb. +	-3 to 55℃	
Temp. Accuracy (°C)	<u> </u>	±0.1	
Recovery Time	≤7 mins (After 3	O sec. Door opening)	
CO2 control system	Micropro	ocessor PID	
CO ₂ range (% CO ₂)	()-20	
CO ₂ accuracy (% CO ₂)	±0.1	(at 37°C)	
CO ₂ sensor	IR standard	TCD optional	
O ₂ range (% O ₂)	1.0%-20%	or 3.0%-85.0%	
O ₂ accuracy (% O ₂)	±0.2 (at 37°C)		
O ₂ sensor	Zirconium		
Humidity range (% RH)	≥90%±3%R		
Interior Volume	151 L		
External Dimensions (mm) (WxDxH)	637x768x869		
Interior Dimensions (mm) (WxDxH)	470x	530x607	
Net Weight		75 kg	
Standard Quantity of Shelves		3	
Maximum Quantity of Shelves		10	
Shelf Dimensions (mm) (WxD)	42	3x445	
Max. Load per Shelf (Kg)		10	

Available Electrical configuration	220V±10% / 50Hz (standard)	
Rated Power	≤650VA±10%	
Interior material	Stainless steel, type 304	
Alt Name	Air-jacketed CO2 Incubator	

FEATURES

Contamination prevention:

90°C disinfection routine decontaminates the entire interior of the chamber while causes less damage to electronic components In independent tests, a routine disinfection circle is proven to completely eliminate a variety of contaminants including mycoplasma A completely smooth inner casing with rounded corner reduces the possibility of hidden contamination. Easy-removable, replaceable shelves make chamber cleaning a rapid and efficient process.



90° moist heat decontamination



Condensation control

Temperature control:

Direct heating enables rapid temperature recovery while air jacket provides isolation against ambient temperature fluctuations PT1000 temperature sensor ensures stable temperature control with little gradient and prompt temperature recovery without overheat

Three temperature control settings (main heater, outer door heater and overheat protection) minimize condensation and yield precise temperature uniformity.

CO2 control:

Drift free IR CO2 sensor responds extremely fast to gas concentration changes
Auto-zero runs automatically to recover the indicator to 'zero' every 24 hours
HEPA filter of CO2 inlet port can remove impurities and contaminants with efficiency 99.998% @ 0.2um
Standard CO2 cylinder auto changer alerts users and ensures continuous CO2 supply.



AUTO START



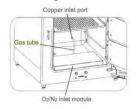
Access port



Gas Guard Set

02 control:

Maintenance-free zirconium oxide sensor: long life, good linearity and high precision Oxide sensor is calibrated automatically(auto-cal) and stays in the incubator during the 90°C decontamination routine Well designed 02/N2 inlet module improves humidity stability in chamber.



Constant humidity

Larger water surface area provided by water reservoir with inclined and rounded corners

A new water level alarm(audible and visible) alerts users when the water reservoir needs to be refilled.

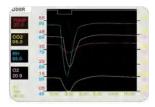
Standard humidity sensor ensures a constant high level of humidity to prevent cultures from drying out.

User-friendly interface:

Microprocessor with soft-touch control panel for optimum operation Large-size TFT-LCD display for temperature, CO2, O2 concentration and RH Comprehensive visual and audio alarms for all parameters Diagnostic interface provide comprehensive solutions to frequently encountered problems. RS8232 port standard for communication and external instrument logging.



Large-size TFT-LCD



Real-time monitoring system

CO2 INCUBATOR AIR JACKETED BGI2D1 BGI2D2 BGI2D3

AIR JACKET CO2 INCUBATOR



Intelligent touch screen controller:

Replace traditional button operation to touch screen interface.

It can display on the performance curve. You can check the temp., humidity (option) and CO_2 concentration three group curves changes at the same time.

And abnormal alarm and door open or close message.

When parameters are set, the controller will lock the screen automatically. It avoids unauthorized person wrong operation on the machine.

72 hours machine performance inquiry. It is convenient for user to check abnormal situation and track historical running information.

RS-485 communication port as options can be remote control on computer for monitoring the running and start or close the machine.

CO₂ concentration sensor:

SPECIFICATIONS

Model	BGI2D1	BGI2D2	BGI2D3	
Old Model	BCAJ-6601	BCAJ-6602	BCAJ-6603	
Electrical requirement	AC220V/50Hz			
Input power	750W 950W		950W	
Heating power	Ai	Air jacket micro computer PID control		
Temp. control range		RT+3 - 50°C		
Work environment temp	+5 - 30°C			
Temp. accuracy	±0.1°C			
CO₂ control range	0 - 20%			
CO ₂ control accuracy	±0.1% (IR sensor)			
CO2 restore time	(Door open 30s, recovery to 5%) ≤ 3min			
Temp. restore time	(Door open 30s, recovery to 37°C) ≤ 8min			
Related humidity	Nature vaporate > 95% (Can equip with related humidity digital display)			
Volume	155L	190L	240L	
Chamber size WxDxH (mm)	480x530x610	520x530x690	600x630x670	
Overall size WxDxH (mm)	670x767x880	708x710x1030	788x837x940	
Standard shelves qty	3 pcs			
Sterilization	90 degree centigrade and UV sterilization + HEPA high efficient filter			
Alt Name	Air jacket CO2 incubator			

FEATURES

Intelligent touch screen controller:

Replace traditional button operation to touch screen interface.

It can display on the performance curve. You can check the temp., humidity (option) and CO_2 concentration three group curves changes at the same time.

And abnormal alarm and door open or close message.

When parameters are set, the controller will lock the screen automatically. It avoids unauthorized person wrong operation on the machine.

72 hours machine performance inquiry. It is convenient for user to check abnormal situation and track historical running information. RS-485 communication port as options can be remote control on computer for monitoring the running and start or close the machine.









CO₂ concentration sensor:

You may need to open door frequently during experiment, Infrared sensor is the best choice under this circumstances. Our Infrared sensor is very sensitive to CO₂ concentration varies and it will not be affected by inside of incubator chamber conditions, measured accurately. It doesn't like traditional thermal probe that will be sensitive to chamber temp., and humidity that lead to incorrect CO₂ concentration data.

If open the door for 30s and close the door, within 3 min the CO₂ concentration can resume to the set value 5%. Even if there are many people use the same machine and frequently open and close door, the inside chamber can still maintain CO₂ concentration stable and uniform.

Temperature control and monitoring system:

A. Incubator temperature control system

PT100 temp. sensor keeps inside chamber temperature accurate. It can adjust the heating power according to the temp. differences between actual temp. in the chamber and set temp. to make sure temp. in the chamber is accurate. It can resume experiment temp. in 3 min after user open and close door to take samples.

B. Door heating system

Outer door ring has heating function. The temperature of door ring will be a little bit higher than temp. in the chamber to prevent condensed water coming from the inner glass door. It facilitates observe the experiment process, also it can help avoid biological pollution possibility due to the condensed water from the inner glass door.

C. Environment temp. detect system

Independent environment temp. detector, it can automatically adjust the CO₂ incubator heating system according to experiment environment temp. varies. In this case, over temp. in the chamber will not happen.

D. Over temp. protection system

It is an independent backup temp. control system besides the CO_2 incubator temp. control system. When the incubator temp. control system failed and caused temp. loss control, the chamber temp. reaches to the over temp. limited set value, over temp. protection system will cut down the heating and alarm audible with light.

E. Power off alarm system

Detect the power supply real time. When power off, the incubator will alarm audible with light to avoid any loss due to power shortages.

Sterilization system:

Ultraviolet sterilization (Option)

The ultraviolet lamp is placed at the back top of the chamber. It can sterilize the chamber regularly. It kills chamber recycle air bacteria and float bacteria from water tray or side water in the bottom, effectively prevent pollution during cell culture period.

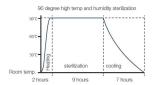
Sterilization system:

A. 90 degree high temp. high humidity sterilization system (RHP)

It can thoroughly sterilize the chamber (Including temp. sensor, CO_2 concentration sensor, fan, shelves and brackets etc.) with high temp and high humidity.

It eliminates bacteria, mold, mycoplasma etc. microbiology that pollute the microorganisms cell culture and provides a safe experiment environment.

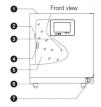
Simple operation: The user just presses the sterilization start button on the control panel, the sterilization system starts to thoroughly sterilize the chamber (including temp. sensor, CO_2 concentration sensor, fan, shelves and brackets etc.) The whole sterilization cycle is shortened to 18 hours.

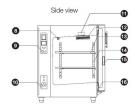


Safe Functions:

High and low temp. and over temp. alarm
Door open too long alarm
Door temp. sensor failure alarm
Chamber sensor failure alarm
CO₂ condensation too high or too low alarm
Disinfection and sterilization status reminder
Independent temp. limiter alarm
Power off alarm
Over temp. sensor failure alarm

CO2 incubator structure:





Outer
Door switch
Test hole
Glass door knob
Glass door
Adjustable feet
Door open collision block
Ultraviolet lamp

CO₂ switch box
Main power input
Fan
HEPA
Shelves
Adjustable shelve holder
Door handle
Magnetic door seal



CO2 INCUBATOR AIR JACKETED BFN1F1

CO2 INCUBATOR

It represents a new era in advanced incubator design for your most demanding and highly critical applications like stem and primary cells in leading research, pharmaceutical and clinical laboratories.

By combining advanced technology advancements, It delivers the reliable performance, enhanced simplicity, and complete contamination control required to support an optimal cell growth from basic research to demanding, leading-edge applications.

Why we choose hot-air sterilization

Hot-air sterilization is carried out under 160~180° C.The incubator's sterilization program consists of three phases:

I. heat up to maximum temperature,

II. expose at maximum temperature and

III. cool down to incubation

CO2 incubators provide an optimal cell growth environment by maintaining a humidified atmosphere with temperature and carbon dioxide control. These conditions not only promote cell growth, but also the growth of contaminants, like bacteria, yeast, molds and other fungi. The contamination-reducing features of an incubator's functional design and the effectiveness of its A self-decontamination system must be considered in choosing an instrument.





Airflow distribution:

In-chamber fan gently and evenly distributes clean, humidified air throughout the chamber ensuring all cell experience the same conditions without the threat of desiccation.

Airflow design is incorporated to deliver faster recovery and uniformity for consistent results, avoiding unwanted sample variation. Incoming air first travels over a direct heated water reservoir resulting in 50% faster humidity recovery than with a standard water pan

design

Complete contamination control required to support an optimal cell growth from basic research to demanding, leading-edge applications.

Drift-free CO2 sensor:

SPECIFICATIONS

Model	BFN1F1	
Construction		
Chamber Volume (Liter/cu.ft)	185	
Net Weight	80kg (176 lbs)	
Interior Material	Stainless steel, type 304, mirror finish	
Exterior Material	Cold-rolled steel, powder coated	
Temperature		
Temp. Control method	Direct heat & air jacket (DHA)	
Temp. Control Sensor	Pt1000	
Temp. Control (°C)	±0.1	
Temp. Range (°C)	Ambient +3 to 55	
Temp. uniformity (°C)	±0.3	
De-contamination		
Cycle Temp.	180°C dry heat disinfection on all internal surfaces	
CO2		
CO2 Control (% CO2)	±0.1%	
Inlet Pressure (MPa)	0.1	
CO2 Sensor	TCD or IR	
CO2 Range (% CO2)	0~20	
Humidity		
Humidifying System	Special designed water reservoir	
Relative Humidity (% RH)	≥95%	
Water Reservoir Volume (L)	3	
Shelves		
Shelf Dimensions (WxD, mm)	453x433	
Standard/Maximum Quantity	3,10	
Shelf Construction	Stainless steel, type 304, mirror finish, perforated, adjustable	
Max. Load per Shelf	10 kg (22.05 lbs)	
Rated Power	≤650VA±10%	
Power Supply	220V/50Hz(Standard), 110V/60Hz (Optional)	
Alarm System	Power interruption, High/low temperature, Deviation of CO2, RH, Door ajar, Independent overheat protection	
Data Output	RS232, remote alarm contacts, USB	
Alt Name	CO2 Incubator	

FEATURES

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Drift-free CO2 sensor:

CO2 sensors are positioned in the chamber to respond quickly to any deviations in desired conditions. Robust design improves stability and reliable service life, eliminating the need for removal during sterilization and separate cleaning. On-demand auto-start, auto-zero and auto-cal facilitates easy start-up and calibration.

Variable oxygen control:

Oxygen controlled models are equipped with advanced zirconium oxide sensor

Hypoxic: For primary cell, stem cell and embryo research applications.

Hyperoxic: For research in lung, retina and other sensitive tissues.

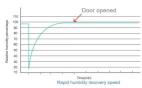
Oxygen levels in Human Tissues	
Lungs	14%
Arteries	12%
Liver, Heart, kidneys	4-12%
Eyes	1-5%
Brain	0.5-7%
Bone Marrow	0-4%

Condensation-free humidification system:

Integrated 3 liter reservoir provides stable, high relative humidity levels, allowing faster recovery and more space for samples than traditional pan designs Water reservoir maximizes relative humidity without condensation ensuring a dry inner chamber, preventing contaminants.

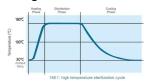


Condensation-free water Reservoir System



Contamination control:

180°C high temperature sterilization cycle offers simplified cleaning protocols to protect your valuable cultures, eliminate the loss of time and resources while providing convenient added security for your research work. The simple routine protects the incubator air, all chamber surfaces and humidification water from biological contaminants and eliminates the need for separate autoclaving of parts.



HEPA air filtration for air purity:

Airborne particulates are a primary source of contamination in most lab settings.

The in-line HEPA filter cleans the airstream of microbes and particles protecting cultures from contamination.

Entire chamber air volume is filtered every 60 seconds to achieve ISO class 5 cleanliness.

Simple operation:

Main screen with a bright LCD display provides at-a-glance monitoring even from a distance.

The intuitive interface provides complete data visibility to monitor all incubator interaction, featuring door-mounted position for easy access, on-screen menu prompts, error and usage logs, data logging, performance trend graphing.

'On-demand data and error logs provide a downloadable history of activity and conditions including parameter changes and alarms.



Optimized chamber design:

Easy-to-clean, coved-corner interior with convenient access port. No special tools required for assembly and disassembly of interior components



Biolab Scientific Ltd.