

**CO2 INCUBATOR AIR
JACKETED**



CO2 INCUBATOR AIR JACKETED

Precise management of temperature and CO2 provides an exceptionally stable environment, it is easy to maintain precise time/date stamped records of all incubator functions as often as necessary and adopts door heating control system. It is majorly used in issue engineering, mammalian cell research, tissue culturing and oncology studies.

Used in Cell Culturing, Tissue culturing, Tissue Engineering, Vitro fertilization, Mammalian cell research, Oncology studies..

Also known as Laboratory CO2 Incubator Air Jacketed, Air Jacketed CO2 Incubator.

IO11 SERIES AIR JACKETED CO2 INCUBATOR



IO111, IO114



IO112, IO113

FEATURES

	IO111	IO112	IO113	IO114
ALLFLOWTM:Clean Air Circulation System	•	•	•	•
ALLSENSTM:Programmable PID Controller	•	•	•	•
Equipped with UV lamp	•			•
Adopt door heating control system	•			•
Double door design	•			•
Forced Convection		•	•	
Inner material: SUS304 stainless steel		•	•	
ALLHEATTM:Chamber Preheating Technology		•	•	

SPECIFICATIONS

Model	IO111	IO112	IO113	IO114
Capacity	80 L		160 L	
Temperature Range	RT +5-60°C	RT+5~55°C		RT +5-60°C
Temperature Accuracy	±1°C	0.1°C		±1°C
Temperature Fluctuation	±0.5%	±0.5 at 37°C		±0.5%
CO2 Range	0~20%			
CO2 Recovery Time	≤concentration x 1.2 min	(after 30 seconds door opening to 5%) ≤2 min		≤concentration x 1.2 min
Jacket Type	Air jacket type			

Internal Dimension (WxDxH)	500x400x400 mm		650x460x540 mm	650x550x500 mm
Overall Dimension (WxDxH)	835x550x550 mm	755x550x547 mm	650x460x540 mm	985x700x650 mm
Shelves/Trays	2		3	2
Weight	36 kg	35 kg	55 kg	57 kg
Power	350 W	500 W	650 W	550 W
Power Supply	220V	Single phase AC220V/50Hz		220V
Ambient Temperature	-	10~30°C		-
Temperature Uniformity	-	±0.8 at 37°C		-
Temperature recovery Time	-	(after 30 seconds door opening to 37°C) ≤ 8 min		-
CO2 Sensor	-	IR sensor (±0.1%)		-
Humidifying Method	-	Natural Evaporation >95%		-
Ambient Humidity	-	<70%		-

IO12 SERIES AIR JACKETED CO2 INCUBATOR



IO121, IO122, IO123, IO124

FEATURES

	IO121	IO122	IO123	IO124
To sterilize the internal part with 90°C high temperature and high humidity.	•	•	•	•
Advanced fuzzy logistic PID control, the temperature control is accurate and true.	•	•	•	•
Automatic start function is provided, CO2 density is more accurate and stable after automatic adjustment.	•	•	•	•
The special HEPA high effective filter, with the filtering efficiency of 99.97% for granule which can effectively filter the bacteria and dust.	•	•	•	•
Pressure compensation hole is provided to avoid the abnormal pressure and prevent the absorption of ambient air when opening the door.	•	•	•	•
All-around spatial heating method and unique air duct structure are applied.	•	•	•	•
The micro-computer controlled chassis heater is independent from door heater.	•	•	•	•
Intelligent alarm, temperature deviation alarm and CO2 density deviation alarm functions etc. are provided.	•	•	•	•
An over temperature protection system is provided to guarantee the safety of product.	•	•	•	•
The standard configuration of creepage protector makes the product and safety performance more humanized.	•	•	•	•

SPECIFICATIONS

Model	IO121	IO122	IO123	IO124
Capacity	161 L		195 L	
Temperature Range	Room temperature +5-55°C			
Temperature Control Accuracy	±0.1°C			
Temperature Control Alarm	≥±0.1°C(adjustable)			
CO2 Range	0-20%			
CO2 Accuracy	5%±0.1%			
CO2 Sensor	TCD	IR	TCD	IR
CO2 Alarm	≥±0.1% (adjustable)			
CO2 Recovery Time	About 1%/min			
CO2 Filter Efficiency	99.998%			
Internal wetting water pond	3 L			
Inner structure	Arc on four sides			
Relative Humidity	95±3%			
Temperature Sensors	PT1000			
Internal Dimention (WxDxH)	480x480x700 mm		500x500x780 mm	
Overall Dimension (WxDxH)	677x740x1056 mm		697x760x1236 mm	
Stainless clapboard	3		4	

IO13 SERIES CO2 INCUBATOR AIR JACKETED



IO131



IO132



IO133



IO134, IO137



IO135, IO136

FEATURES

	IO131	IO132	IO133	IO134	IO135	IO136	IO137
151 liters internal volume	•	•	•	•	•	•	•
Zirconium oxide Sensor	•	•	•	•	•	•	•
IR CO2 sensor	•	•	•	•	•	•	•
Water Level Alarm	•	•	•	•	•	•	•
Integrated electric siphon pump	•	•	•	•	•	•	•
Auto-zero	•	•	•	•	•	•	•
Temperature deviation (at 37° C)	•	•	•	•	•	•	•
Moist-heat disinfection at 90°C	•	•	•	•	•	•	•
Relative humidity ≥95%	•	•	•	•	•	•	•

SPECIFICATIONS

Model	IO131	IO132	IO133	IO134
Name	Air Jacketed CO2 Incubator			
Capacity	151 L		212 L	240 L
Temperature Range	5°C above ambient temperature to 50°C			
Temperature Stability	±0.1°C			
Temperature Uniformity	±0.2°C		±0.3°C	±0.2°C
CO2 Range	0-20%			
CO2 Stability	±0.1%			
CO2 Sensor	Thermal Conductivity			
CO2 Inlet Pressure	0.1 Mpa			
Filter	0.3 um, Efficiency:99.998% (for CO2)			
Access Port	Optional	Standard	Optional	Standard
Remote alarm contacts	Standard			
Relative Humidity	≥ 95%			
Humidifying System	Special designed water reservoir			
Water reservoir volume	4 L	3 L	6 L	3 L
Inner Door	one inner door standard	3 inner doors standard	one inner door standard	6 inner doors standard
Interior	Type 304, mirror finish, stainless steel			
Exterior	Electrolyzed galvanization steel, powder coated			
Temperature Sensors	PT1000			
Internal Dimension (WxDxH)	470×530×607 mm		600×588×600 mm	607×580×670 mm
Overall Dimension (WxDxH)	615×768×865 mm	637×762×909 mm	910×763×795 mm	780×820×944 mm
Shelves/Trays	3 standard, 10 maximum		3 standard, 12 maximum	
Shelf Dimension(WxD)	423×445 mm		590×510 mm	423×445 mm
Temperature control method	Microprocessor			
CO2 control system	Microprocessor			
Alarm System	Power interruption, High/Low temperature, Deviation of CO2, RH, Door ajar, Independent overheat protection			
Weight	75 kg	80 kg	95 kg	80 kg
De-contamination	UV lamp	90°C moist heat	UV lamp	90°C moist heat

		disinfection		disinfection
Power	600 W		700 W	735 W
Power Supply	AC-220 V/AC 110 V 50/60 Hz			
Data Output	-	RS232	-	RS232
Temperature Accuracy	-	-	-	-
Temperature recovery Time	-	-	-	-
CO2 Accuracy	-	-	-	-
Humidity Range	-	-	-	-
Max. Load per Shelf	-	-	-	-
Half-size shelves	-	-	-	-

Model	IO135	IO136	IO137
Name	Air Jacketed CO2 Incubator (TCD)	Air Jacketed CO2 Incubator (IR)	Air Jacketed CO2 Incubator
Capacity	151 L		240 L
Temperature Range	Amb. +2 to 55°C		5°C above ambient temperature to 50°C
Temperature Stability	-	-	±0.1°C
Temperature Uniformity	-	-	±0.2°C
CO2 Range	0~20%		0-20%
CO2 Stability	-	-	±0.1%
CO2 Sensor	TCD	IR	Thermal Conductivity
CO2 Inlet Pressure	-	-	0.1 Mpa
Filter	-	-	0.3 um, Efficiency:99.998% (for CO2)
Access Port	-	-	Standard
Remote alarm contacts	-	-	Standard
Relative Humidity	-	-	≥ 95%
Humidifying System	-	-	Special designed water reservoir
Water reservoir volume	-	-	3 L
Inner Door	-	-	6 inner doors standard
Interior	Stainless steel, type 304		Type 304, mirror finish, stainless steel
Exterior	-	-	Electrolyzed galvanization steel, powder coated
Temperature Sensors	PT1000		
Internal Dimension (WxDxH)	470×530×607 mm		607×580×670 mm
Overall Dimension (WxDxH)	637×768×869 mm		780×820×944 mm
Shelves/Trays	3 standard, 10 maximum		3 standard, 12 maximum
Shelf Dimension(WxD)	423×445 mm		
Temperature control method	-	-	Microprocessor
CO2 control system	Microprocessor PID		Microprocessor
Alarm System	-	-	Power interruption, High/Low temperature, Deviation of CO2, RH, Door ajar, Independent overheat protection

Weight	80 kg		
De-contamination	-	-	90°C moist heat disinfection
Power	$\leq 650 \text{ VA} + 10\%$		735 W
Power Supply	220 V $\pm 10\%$ / 50 Hz		AC-220 V/AC 110 V 50/60 Hz
Data Output	-	-	RS232
Temperature Accuracy	$< \pm 0.1^\circ\text{C}$		-
Temperature recovery Time	≤ 7 mins(After 30 sec. Door opening)		-
CO2 Accuracy	± 0.1		-
Humidity Range	$\geq 95\% \pm 3\%$		-
Max. Load per Shelf	10 kg		-
Half-size shelves	-	-	6

ACCESSORIES

Accessory Code	Name	Units	For Models
IX1007	Standard shelf	3 Sets	All
IX1008	Electric siphon pump	1 Set	IO131, IO132, IO133, IO134, IO137
IX1026	CO2 steel cylinder auto-switch device	1 Set	IO135, IO136

OPTIONAL ACCESSORIES

Accessory Code	Name	Dimension	Description	For Models
IX1009	Floor stand for 2 stacked incubators	585x637x200 mm		IO131, IO132
IX1010	Floor stand for 1 incubator	585x637x400 mm		IO131, IO132
IX1011	Small CO2 inlet filter			IO131, IO132, IO133, IO134, IO137
IX1012	Shelf		Including: shelfx1, shelf supportx2	IO131, IO132
IX1013	UV light			IO131, IO132
IX1014	Electric siphon pump			IO131, IO132, IO133, IO134, IO137
IX1015	CO2 steel cylinder auto-switch device			IO131, IO132, IO133, IO134, IO137
IX1016	CO2 regulator			All
IX1017	4 in 1 CO2 steel cylinder auto-switch device			IO131, IO132, IO133, IO134, IO137
IX1018	Air connector			All
IX1019	Floor stand for 2 stacked incubators	910x665x200 mm		IO133
IX1020	Floor stand for 1 incubator	910x665x490 mm		IO133
IX1021	Shelf		Including :shelfx1, shelf supportx2	IO133, IO134, IO137
IX1022	UV light			IO133
IX1024	Floor stand for 2 stacked incubators		High 200 mm without castor	IO134, IO137
IX1025	Floor stand for 1 incubator		High 600 mm with castor	IO134, IO137

IX1027	Shelf			IO135, IO136
IX1028	Shelf support			IO135, IO136
IX1029	Small HEPA filter			IO135, IO136
IX1023	Half-size shelf		Including :shelfx1, shelf supportx2	IO137

+

LABSTAC LTD.

Kemp House 152 – 160 City Road, London EC1V 2NX, United Kingdom.

Email: contact@labstac.com

Website: www.labstac.com