Advance Biotech Solutions India Pvt. Ltd.

(Advance Technologies, Effective Solutions)

(An ISO 9001:2015 Certified Company)

MADE IN INDIA

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STER-SAFE MAX
CO2 Incubator

ABSIPL make Ster-Safe Max brands CO_2 Incubator /Tri-Gas Incubator gives us Best Solutions for:

- Temperature
- CO2 concentration
- Decontamination
- Humidity

Application: In vitro fertilization (IVF), Cancer research, Antigen research, Cell transplantation, etc.

Your cell culture needs	Our solution
Accuracy, uniformity and quick temp recovery rates	• Two high quality PT100/PT1000/ IR sensors - precise • Highly efficient fan-assisted distribution- uniformity
Accuracy, uniformity and quick gas recovery rates	• Reliable CO2 sensor technology • Highly efficient fan-assisted distribution- uniformity
Constant humidity for cell protection and optimal growth	• A unique integral humidity water reservoir • Surface area larger than ordinary water pans
Worry free 24/7 protection against contamination	• 180 dry/90℃ moist heat decontamination • UV lamp sterilization • HEPA filtration and air recirculation • Less is more when it comes to cleaning
Easy to use	• User friendly interface improves your visibility • Visibility to changes in culture environment • Monitor alarm alerts visually on the display

Pollution prevention and decontamination
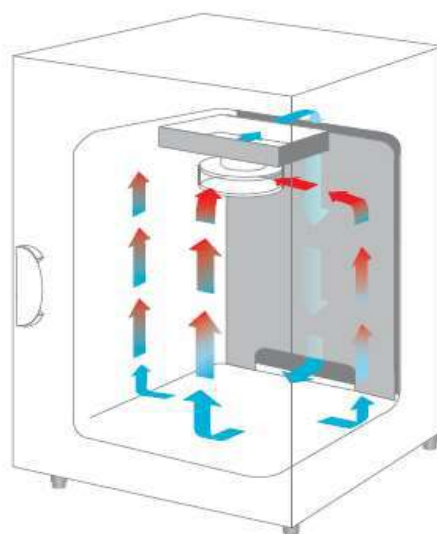
- Ozone-free
- Special designed, high moist resistant
- Air quality achieves Class 100 levels within 5 minutes
- HEPA filter system runs continuously and within 60 seconds, the volume of entire chamber is disinfected
- Increase accuracy of IR sensor

IR Sensitive Control of CO2 Concentration

The new IR sensor with high temperature resistance of 190°C is based on the NDIR measurement principle and uses a silicon MEMS transmitter to replace the traditional light source. It can withstand more than 300 dry heat sterilization cycles with a service life of up to 15 years and control accuracy of ±0.1%. German IR infrared sensing technology, zero drift, without need for calibration, drift less than 0.3% within 2 years.

Unique water reservoir design, fast humidity recovery

- Heat the bottom directly and enlarge vaporization area
- You can work with air humidity up to 95% while the internal walls remain completely dry.

High-precision and long lifespan TC sensor with Auto-start function

- Stable CO2 concentration ensures the success of cell culture
- Over a period of time, CO2 sensors may confront zero-drifting problem, regardless of TC or IR sensor, which will cause inaccurate CO2 level inside chamber.
- High or low CO2 concentration will change PH value of culture solution. The solution color will change to yellow or purple.
- The thermal conductivity CO2 sensor has it baseline automatically reset without manual adjustment.
- The incubator can be loaded immediately after the start-up routine is completed

Space Utility

- Stackable design takes up less space
- Two or three units can be stacked according to available space and usage
- Design compatibility

Heating Elements

Heating elements, made of high grade imported nichrome wire are insulated inside the porcelain beads and placed at the bottom and side ribs for uniform temperature all over the space.

Temperature Control

To provide digital temperature control display and Temperature is controlled by imported capillary type thermostat from 5°C above ambient to 80°C ±0.5°C. Temperature control knob is graduated in centigrade degrees after actually observing the temperature in steady state.

Ventilation

Air ventilators port are provided on sides at top for ventilate fumes & to assist convection process.

Control Panel

The equipment is provided with a Electric panel having a thermostat control knob, ON/OFF switch or digital temperature controller and indicating light.

Vison	Model	Positioning	Note
	SSM100	High level	Direct heat, Air jacketed, Tri-gas incubator, 180°C moist heat decontamination
	SSM90/SSM120/SSM180	High/medium level	Direct heat, Air jacketed, CO_2 incubator, 90°C moist heat/180° dry heat decontamination
	SSM170/SSM260	Medium level	Direct heat, Air jacketed, CO_2 incubator, UV sterilization
	SSM170W	High/medium level	Water jacketed, CO_2 incubator, HEPA filtration, TC or IR CO_2 sensor

Precise Temperature Control

With six-sided heating based on fuzzy PID control, it has internal dual PT1000 high precision sensors.

Note: Product appearance and specifications are subject to change without notice

DIRECT HEAT- AIR JACKETED, TRI-GAS INCUBATOR, 180°C DRY HEAT DECONTAMINATION

MODEL	SSM100
Specifications	
Temperature Range	5°C above ambient to 55°C
Capacity (L)	100
Temperature stability	± 0.1°C
Temperature Uniformity	± 0.2°C.
Inner door	3 mini inner doors optional
Heating method	Direct Heat & Air Jacket (DHA)
Temp. Control system	Microprocessor
Temperature Sensor	PT1000 / PT100
Humidity range	≥95%
Inlet pressure	0.1 MPa
Humidifying system	Special designed water reservoir
CO_2 Range	0 to 20%
Water reservoir volume	5 L
CO_2 Sensor	Thermal Conductivity / IR
CO_2 Control System	Microprocessor
CO_2 Stability	± 0.1%
O_2 Sensor	Zirconium
O_2 Range (% CO_2)	1.0 -25.0, 3.0 - 85.0
Interior Constructions	Type 304, mirror finished, stainless steel.
Exterior Constructions .	Electrolyzed galvanization steel, powder coated
Shelf construction	3, 10
Shelf constructions Standard	Type 304, mirror finished, stainless steel.
Access Port	Standard
Air filter	0.3μm, Efficiency: 99.998% (for CO_2)
Remote alarm contacts	Standard
De- Contamination	90° /140° /180° moist heat
Rated power	700W
Power supply	220V 8A, 50/60Hz
Alarm system	Power interruption, High/low temperature, Deviation of CO_2, RH, Door ajar, Independent overheat protection.
Data output	RS232
Interior Dimensions (mm)	450 x 500 x 550
Exterior Dimensions	600 x 650 x 675
Net Weight	72 Kg.
Certification	CE Certified

DIRECT HEAT- AIR JACKETED, CO2 INCUBATOR, 90°C MOIST / 180°C DRY HEAT DECONTAMINATION

MODEL			SSM90	SSM180	SSM260
Type			Air Jacket	Air Jacket	Air Jacket
Construction	Chamber Volume (L)		90	180	260
	Interior Chamber		Stainless Steel		
	Exterior Chamber		Cold-rolled Steel Powder Coated		
	Access Port		35mm Diameter		
	Data Outputs		Remote Alarm Contacts, USB, and Optional 4-20mA		
Dimensions	Net/Gross Weight (approx)	kg	75/100	110/140	135/170
		lbs	165/220	242.5/308.6	297/374
	Interior Dimensions (W*D*H)	mm	400*420*490	490*560*650	570*610*745
		in	15.7*16.5*19.3	19.3*22*25.6	22.4*24.0*29.3
	Exterior Dimensions (W*D*H)	mm	625*684*735	714*812*887	794*867*985
		in	24.6*26.9*28.5	28.1*32*34.9	31.3*34.1*38.8
Shelves	Dimensions (W*D)	mm	380*300	470*434	550*484
	Number Standard/Maximum		3/7	3/11	3/13
	Max. load Per Shelf/Total Load	kg	15/45	15/45	15/45
	Construction		Perforated, Adjustable		
Electrical	Rated Voltage Power Supply (V/Hz)		220/50	220/50	220/50
	Nominal Consumption (kw) (Steri-run)		0.07 (0.9)	0.095 (1.4)	0.12 (1.6)
Control	Controller		Microprocessor	Microprocessor	Microprocessor
	Display		7 "LCD Screen	7 " LCD Screen	7 "LCD Screen
CO2	Control		±0.1%	±0.1%	±0.1%
	Range		0-20%	0-20%	0-20%
	Alarm Range		±0.5%	±0.5%	±0.5%
	Inlet Pressure		12-17Psi (0.8-1.2 Bar)		
	Gas Purity	%	Min.99.5 or Medical Quality		
	Sensor		IR	IR	IR
	Recovery Time at 5vol.-%/CO2 for a 30 Second Door Opening * (min)		4	4	4
	CO2 Inlet Filter (µm)		<0.2	<0.2	<0.2
Alarms	High/Low Temperature		Y	Y	Y
	Remote Alarm		Y	Y	Y
	Excessive CO2 Concentration		Y	Y	Y
	Water Shortage		Y	Y	Y
	Door Ajar		Y	Y	Y
Temperature Parameter	Control (°C)		±0.1	±0.1	±0.1
	Range		Range 3°C Above Ambient to 55°C		
	Uniformity (°C)		±0.3	±0.3	±0.3
	Ambient Range (°C)		18-32	18-32	18-32
	Sensor		PT1000	PT1000	PT1000
	Recovery Time at 37°C for a 30 Second Door Opening* (min)		4	4	4
Sterilization Cycle	Cycle Temperature		180°C on all Internal Surfaces		
	Cycle Duration		Under 12 Hours	Under 12 Hours	Under 12 Hours
Humidity	RH (Relative Humidity)		Setting 37°C ≥90%	Setting 37°C ≥90%	Setting 37°C ≥90%
	Humidity Reservoir		Max.1.3L/Min 0.5L	Max.3L/Min 0.5L	Max.3.6L/Min 0.5L
Optional	Hepa Filter		Y	Y	Y
	Pressure Reducing Valve		Y	Y	Y
	RS485		Y	Y	Y
	4-20mA		Y	Y	Y
	The Cylinder Switch		Y	Y	Y
Certification			CE	CE	CE

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DIRECT HEAT- AIR JACKETED, CO2 INCUBATOR, UV STERILIZATION

MODEL	SSM170	SSM260
Specifications		
Temperature Range	5°C above ambient to 55°C	
Capacity	170	260
Temperature stability	± 0.1°C	
Temperature Uniformity	± 0.2°C.	
Inner door	3 mini inner doors optional	
Heating method	Direct Heat & Air Jacket (DHA)	
Temp. Control system	Microprocessor	
Temperature Sensor	PT1000 / PT100	
Humidity range	≥95%	
Inlet pressure	0.1 MPa	
Humidifying system	Special designed water reservoir	
CO2 Range	0 to 20%	
Water reservoir volume	5 L	
CO2 Sensor	Thermal Conductivity / IR	
CO2 Control System	Microprocessor	
CO2 Stability	± 0.1%	
Interior Constructions	Type 304, mirror finished, stainless steel.	
Exterior Constructions .	Electrolyzed galvanization steel, powder coated	
Shelf construction	3, 10	
Shelf constructions Standard	Type 304, mirror finished, stainless steel.	
Access Port	Standard	
Air filter	0.3μm, Efficiency: 99.998% (for CO2)	
Remote alarm contacts	Standard	
De- Contamination	UV Lamp	
Rated power	600W	
Power supply	220V 8A, 50/60Hz	
Alarm system	Power interruption, High/low temperature, Deviation of CO2, RH, Door ajar, Independent overheat protection.	
Data output	RS232	
Interior Dimensions (mm)	560 x 600 x 505	680 x 870 x 715
Exterior Dimensions	620 x 750 x 575	740 x 1020 x 785
Net Weight	95 Kg.	125 Kg.
CE Certified		

WATER JACKETED-CO2 INCUBATOR, HEPA FILTRATION, TC OR IR CO2 SENSOR

MODEL	SSM170 W
Specifications	
Temperature Range	5°C above ambient to 55°C
Capacity	170
Temperature stability	± 0.1°C
Temperature Uniformity	± 0.2°C.
Inner door	3 mini inner doors optional
Heating method	Direct Heat & Air Jacket (DHA)
Temp. Control system	Microprocessor
Temperature Sensor	PT1000 / PT100/ IR
Humidity range	≥95%
Inlet pressure	0.1 MPa
Humidifying system	Special designed water reservoir
CO2 Range	0 to 20%
Water reservoir volume	5 L
CO2 Sensor	Thermal Conductivity / IR
CO2 Control System	Microprocessor
CO2 Stability	± 0.1%
Interior Constructions	Type 304, mirror finished, stainless steel.
Exterior Constructions .	Electrolyzed galvanization steel, powder coated
Shelf construction	3, 10
Shelf constructions Standard	Type 304, mirror finished, stainless steel.
Access Port	Standard
Air filter	0.3µm, Efficiency: 99.998% (for CO2)
Remote alarm contacts	Standard
De- Contamination	UV Lamp
Rated power	600W
Power supply	220V 8A, 50/60Hz
Alarm system	Power interruption, High/low temperature, Deviation of CO2, RH, Door ajar, Independent overheat protection.
Data output	RS232
Interior Dimensions (mm)	470 x 530 x 650
Exterior Dimensions	600 x 680 x 720
Net Weight	95 Kg.
CE Certified	