



Farayand Pardis Sina a knowledge-based and leading Iranian company was founded in 2007 and with the participation of industrial researchers began its work in the field of biotechnology.

The company has always placed its priority on three general principles:

- *Complete scientific and technical knowledge on all production procedures.
- *Creating confidence by providing the best after-sale services.
- *Respect the requirement of customers.

Today, this company possesses technical knowledge of producing different kinds of biological equipment, with the trademark of "Sina", it has attracted the attention of researchers and other producers.



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CO2

Incubators

+ Shaker

SINA



Sina CO2 incubator

For cell cultivation, the precision and reliability of CO2 incubators are of crucial importance. During cultivation, the slightest deviation in the CO2 atmosphere, temperature or humidity can influence cell development.

Furthermore, your cultures are valuable and often irreplaceable, so you can trust Sina smart CO2 incubator for reliable and stable growth conditions. Sina air jacket CO2 Incubator offers a dependable Infra-red (IR) CO2 Sensor and is ideal for sensitive tissues and cell culture applications. Sina CO2 incubator is easy to operate and maintenance free allowing you to spend less time managing your incubator.

Benefits

* **Growing Cell Suspension**

Sina CO2 shaker incubator is designed to culture eukaryotic cells such as CHO, HEK, Hela etc. in suspension but can also be used as a static incubator if required.

* **Removable Shelves**

Removable shelves let you simultaneously shake suspension cells or incubate adherent cells under the same conditions.

* **Various Holders**

The orbital shaker can be used with sticky mats or dedicated flask holder trays or universal flask/tube holder plate.

* **Shaker Control**

The orbital shaker is controlled individually for setting time and speed.

* **Safe and Reliable**

Low voltage DC power for maximum safety while providing powerful, stable, uniform and vibration-free motion.

* **Stain Resistant**

The orbital shaker's body and internal parts are specially selected to resist stain.



Applications

Sina Shaker Incubators is ideal for use in Biosimilar and therapeutic protein production, proteomics, crystallography, genomics, cell biology and new drug development.

The shaking CO₂ incubator with separable long life shaker provides the optimum solution for cell culture in suspension.



Advantages

- * High temperature and CO₂ uniformity
- * Advanced PID control to maintain temperature accuracy
- * Stable pH values and fast CO₂ recovery thanks to drift-free CO₂ IR sensor technology
- * Fanless design eliminates a common source of repeated contamination and expensive HEPA filters
- * Easy-to-clean interior
- * Easy-to-manage incubator space with innovative interior design
- * Sealed inner/outer doors
- * Low gas consumption



Features

- CO2 Sensor

Standard NDIR sensor is used to speed up CO2 recovery and most stable performance.

- Accurate Temperature Control

All 6 sides are directly heated and combined with PID control to ensure that temperatures are reached quickly and uniformity is maintained.

- Humidity Display

LED display of actual humidity in the chambers informs the user about the right time of supplying water in the humidity tray.

- Stain Resistant Interior

The inner chamber and shelves are made of stainless steel ASTM 304 which is approved for use in GMP facility and is resistant to rust formation in high humidity conditions.

- Removable Shelves

The shelves and shelf supports are removable to clean and partition the inner chamber easily.

- Glass Inner Door

A glass inner door provides a good and safe view of the cultures.

Sina CO2 shaking incubator

Combining our smart CO2 incubator and shaker technologies, creates a highly stable environment for reliable cell growth.

Dual beam Infra-red sensor provides precise CO2 control while the six side heating system ensures excellent temperature control and recovery.

Sina orbital shaker is designed for highly humid environments and operates vibration-free without generating any particles. This unique patented orbital shaker is removable and could work for long time with DC power supplied by the CO2 incubator.

Shaker Technical Specifications

Power: Dual 24V 4 A / 9V 1A

Motor type: DC Stepper Motor

Shaking mode: Orbital

Shaking diameter: 21 mm

Shaking speed: 10-150 rpm

Soft start: yes

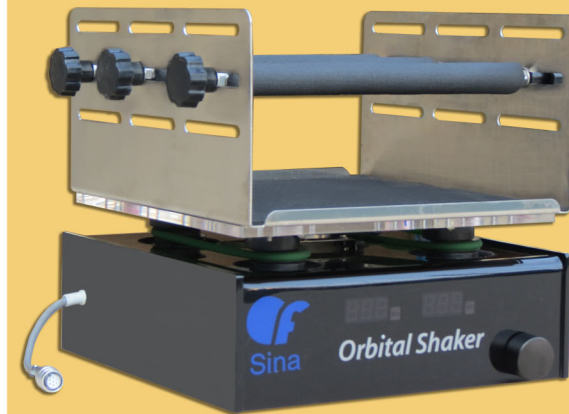
Soft stop: yes

Noise: <25 db

Max load: 6 Kg

Timer: 0-999 min (0 means continuous mode)

Auto restart at latest Run or Stop status



Applications

- Cell and Tissue Culture
- Immunology
- Genetic Engineering
- Protein Synthesis
- Virology
- Neurology
- Pharmacology
- In vitro Fertilization
- Human Vaccines
- Veterinary Vaccines
- Carcinogenicity Testing
- Monoclonal Antibodies



Equipment

- Microprocessor with LED display for temperature and CO2 concentration
- Over temperature and CO2 alarm
- Adjustable limit value for temperature and CO2
- Humidity display
- Automatic diagnostic system with alarm for sensor error
- Drift-free infra-red CO2 measurement system
- Internal gas pressure regulator
- Deep-drawn inner chamber is made of stainless steel
- Tightly-fitted inner glass door
- Perforated stainless steel shelves
- Removable shelves and shelf supports
- Fully insulated outer door with internal heater
- Door opening alarm



Experience stability and reliability with Sina CO2 incubators



Technical Specifications

Model sizes/Specifications	Sina60	Sina108	Sina144
Exterior dimensions			
Width (mm)	550	620	620
Height (including feet) (mm)	680	850	850
Depth (incl. door handle, connections) (mm)	550	580	690
Interior dimensions			
Width (mm)	416	490	490
Height (mm)	416	593	593
Depth (mm)	360	390	510
Interior Usable volume (L)	60	108	144
Shelves			
Construction	Stainless steel, perforated	Stainless steel, perforated	Stainless steel, perforated
Number standard/maximum	2 / 3	3 / 5	3 / 6
Load per shelf (kg)	5	5	5
Max. loading of chamber (kg)	10	15	15
Temperature			
Sensor Accuracy	± 0.1 °C		
Range °C	Ambient +8 up to 50		
Control setability	0.1		
Uniformity	± 0.3 °C	± 0.4 °C	± 0.6 °C
Recovery time after door was opened for 30 sec at 37 °C (Min.)	<5	<7	<9
CO2			
CO2 range (Vol.-% CO2)	0-20		
CO2 Sensor Type	Dual NDIR		
Control setability	0.1		
Recovery time after door was opened for 30 sec ¹⁾ at 5 vol. % (Min.)	<5	<6	<8
CO2 inlet pressure	5-10 psi		
Humidity			
RH range	>85% at 37° C		
Further data			
Power	110/230V,50/60Hz 2 Amp	110/230V,50/60Hz 2.7 Amp	110/230V,50/60Hz 4 Amp
Weight	40 Kg	51	59

¹⁾ The recovery times of the gas concentrations inside the chamber following door opening refer to a connection pressure of 10 psi. Decreasing supply pressure leads to longer recovery times.