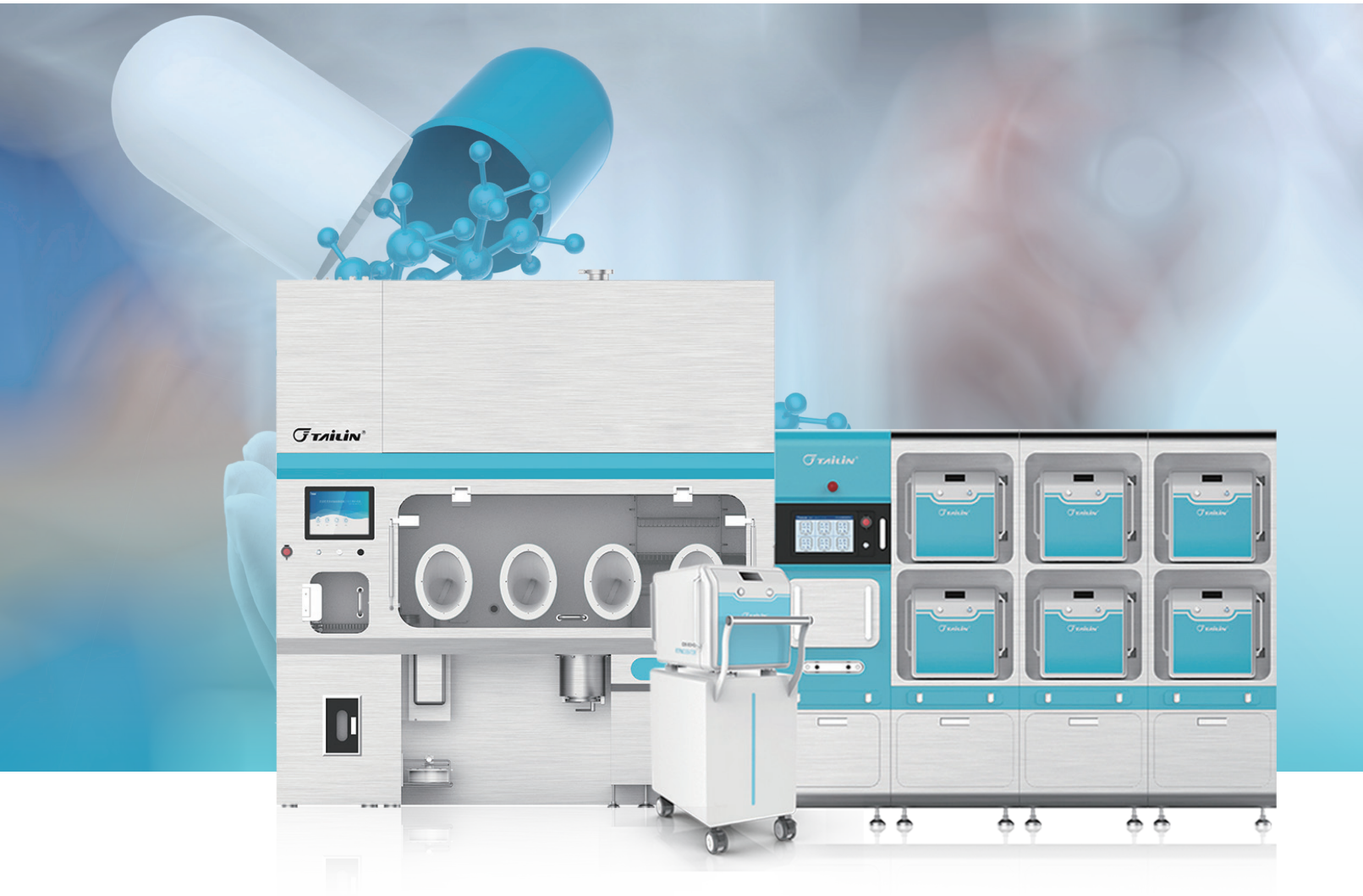
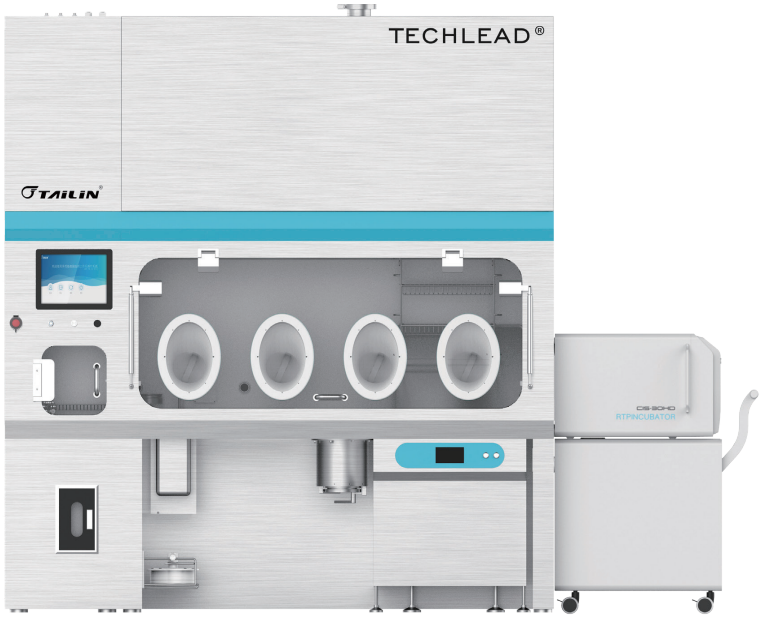


Cell and Gene Therapy Solutions

ZHEJIANG TAILIN BIOENGINEERING CO., LTD

Cell and Gene Therapy Solutions

Cell and Gene Therapy Isolator



Aseptic

+ Class A clean environment
+ Comply with GMP

Sterilization

+ Integrated VH_2O_2
+ Sterilization system

Data Monitoring

+ Real-time recording of system control & environmental monitoring data
+ Record and storage of operation video
+ Data traceability of the whole process of production operation

Modular Design

+ Flexible and customizable according to customer requirements

Extensive Options

+ Crucial equipment available for selection

Space Saving

+ Compact design
+ No need for large building space layout

Cost Saving

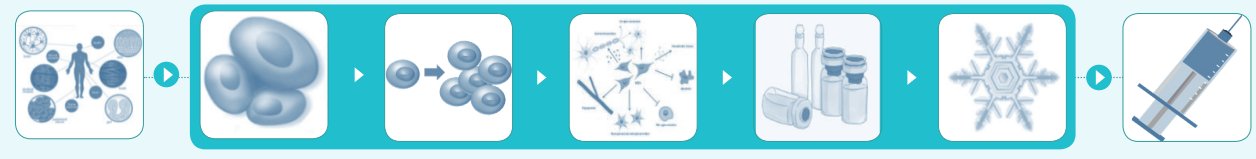
+ Install in Class D
+ Reduce the costs of construction and operating

Applications

Provide a conplete range of equipment solutions for the **Preparation** and **Quality Control** of cell therapy products.

Cell and Gene Therapy Solutions

Provide aseptic manufacturing solutions for stem cell therapy drug preparation



Provide aspetic manufacturing solutions for immunotherapy drug preparation

Cell and Gene Therapy Solutions

Modular Design

Highly Integrated/Intelligent

Rapid Sterilization Transfer Chamber

+ VH_2O_2 sterilization
+ 30L volume
+ Complete sterilization and aeration within 30min
+ Used for tissue samples, reagents, consumables and other items fast delivery

Integrated Low-speed Centrifuge

+ Embedded design VH_2O_2 sterilization
+ Max. rotation speed: 5000r/m
+ Max.relative centrifugal force:3000Xg
+ Max. volume: 50ml*16(800ml) or 250ml*4(1000ml)
+ Data stored in the isolator PC

Micro-observation System

By equipping different cell imaging systems, imaging observation of various types of cells is possible, which in turn enables quality monitoring of cell culture/production.

Friendly Software

+ Operation management system
+ Electronic records/electronic signatures
+ Video traceability management system

Cell Culture System

In order to meet the requirements of cell culture production of different scales, two cell culture solutions can be provided.Embedded cell incubator & honeycomb culture incubator.

Embedded Cell Incubator

- Volume: 30L~100L
- Leakage rate <0.5%V/h
- VHPS® in-situ sterilization

Honeycomb Cell Culture System

Honeycomb Cell Culture System

Tailin honeycomb cell culture system is specifically used for the cultivation of cell products. It is a closed integrated operating system that meets the requirements of GMP aseptic production and provides a highly intelligent and continuous aseptic culture environment for cell products.

The system is equipped with a combination of a honeycom bcell culture incubator and a docking incubator to meet the requirements of large-scale and multi-sample cell culture.

+ Provide a Class A clean environment throughout the entire cell production and culture process, complying with GMP requirements.
+ Real-time recording and storage of system control and environmental monitoring data enable data traceability throughout the production and culture process.
+ The compact integrated design effectively saves space, eliminating the need for large building footprints.
+ Installation is only required in a Class D or higher clean environment, reducing high-level cleanrooms' construction and operational costs.
+ Modular design, allowing flexible expansion of culture space to meet the requirements for simultaneous culture of large-scale and different batches of cells.
+ The visual culture process monitoring system can identify each independent culture unit and manage batches through monitoring, meeting the FDA 21 CFR Part 11 requirements for electronic records, electronic signatures, and audit trails.
+ It provides a highly secure sterile cell culture environment, utilizing hydrogen peroxide sterilization technology to achieve multi-dimensional sterilization protection for the incubator.
+ An integrated rapid sterilization station allows for individual sterilization of culture units.
+Equipped with a docking incubator, it enables rapid and flexible docking between the incubator and the cell and gene therapy isolator, ensuring that the entire process from cell handling to culture is maintained in a sterile environment to prevent cross-contamination.

Cell and Gene Therapy Solutions

Docking Incubator CIS-30SAD

Designed specifically for cell culture, it provides a constant temperature, high humidity, oxygen concentration, and carbon dioxide concentration that are conducive to cell growth. The equipment provides a Class A clean environment for cell culture, meeting the GMP requirements.

WiFi transfer

Data transfer with incubator

Suitable for the cultivation of most engineered cell products on the market and used in large hospitals, cell research institutions, cell therapy companies, etc.

+ Provide a closed sterile culture environment, and adopt 0.22μm high efficiency filter.
+ Can realize the management of multiple batches of cell cultureat the same time, and the incubators are independent without interfering with each other.
+ The entire incubator system complies with three-level permissions, electronic records, and electronic signature.
+ WIFI for wireless data communication, enabling interaction between culture process records, alarm data and culture station information.
+ Air tightness self-check, keep the incubator closed.
+ Electronic interlocking function to ensuring the sterile environmentof the incubator during transportation.
+ The incubator has a door opening detection system, and the electronic records of door openings facilitate traceability.
+ The incubator's cavity can maintain a slightly positive pressure, ensuring a sterile environment inside.

Technical Parameters

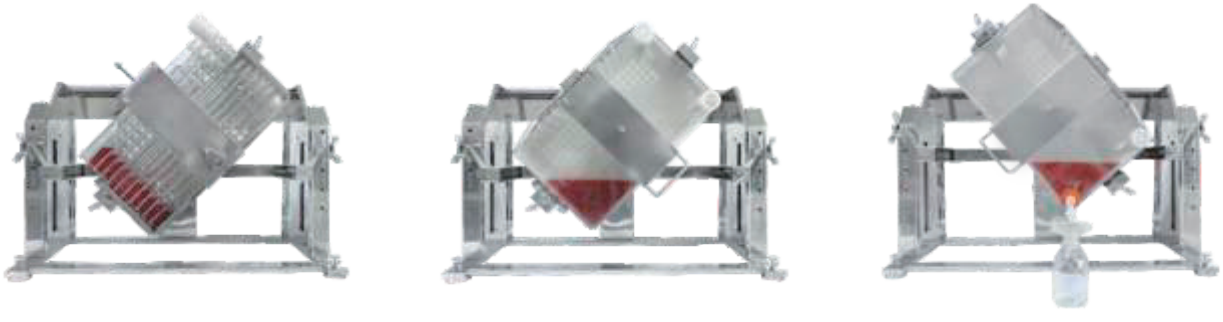
Incubator Volume	30L, 60L, 100L
Temperature Setting Range	RT+5~50°C
Temperature Resolution	0.1°C
Temperature Display Error	±0.1°C (at 37°C)
Temperature Control Error	±0.2°C (at 37°C)
Temperature Control Fluctuation	±0.2°C (at 37°C)
Temperature Control Uniformity	±0.3°C (at 37°C)
Temperature Insulation	≤8°C
RH	≥90%RH
CO_2 Concentration Control Range	0%~20%
CO_2 Concentration Display Resolution	0.10%
CO_2 Concentration Display Error	±0.1% (concentration at 5%)
CO_2 Concentration Control Errorr	±0.3% (concentration at 5%)
Leak Rate	≤0.5%Vol/h, test pressure at 100Pa
Noise	≤65dB(A) at working
Power Supply	AC220V
Power of Each Incubator	200-350W
Data Management	Real-time data recording, data transfer with incubators
Alarm	a. Temperature too high/too low alarm; b. Carbon dioxide concentration too high/too low alarm; c.Water pan water shortage alarm; d. Temperature sensor protection, carbon dioxide concentration sensor failure, fan failure, etc.

Cell Factory Operator

In a biological safety cabinet/isolator, if a cell factory needs to be operated, the equipment can significantly reduce the difficulty of operation, standardize the operation process, and reduce labor intensity.

With the cell factory operator, culture medium can be safely and reliably injected into the cell factory and the liquid can be evenly distributed to each layer.The liquid in the cell factory can also be easily discharged.

+ Compatible with popular cell factory brands like Corning and Thermo Fisher, supporting 5 to 10 layers.
+ Designed for biological safety cabinets/isolators, it measures 630mm (L) x 415mm (W) x 400mm (H) and fits standard front window sizes, making it easy to insert and remove.
+ Inject liquid into the cell factory and mix it evenly which can be achieved through 4 steps.
+ According to the equipment operation, the solidification operation process can eliminate the adverse effects of irregular operation on the experiment.
+ Fully manual structure, no require power supply or gas source, and can be used under any working conditions.



Made from 316L stainless steel, it can meet GMP standards and endure high concentrations of hydrogen peroxide disinfection.

Gas Source Switcher for Cell Culture

With dual gas source automatic switching function and communication function. It can identify the real-time pressure of each gas line, automatically switch to another gas source for gas supply when one gas source is out of gas, and communicate with the alarm system.

Applied in the fields of biology and pharmaceutical engineering, it can provide gas source guarantee for equipment that requires experimental gases, such as cell culture incubators.

+ The high-precision pressure sensor can accurately identify the real-time pressure of each gas circuit.
+ Real-time communication can understand the specific alarm status of the equipment.
+ Easy to operate and the display interface is simple and clear.

Advantages

Automatic Switching Function: Detecting gas circuit pressure and automatically switching to an alternate source when the primary source is depleted, ensuring gas supply for cell culture.

Alarm Function: Monitoring pressure in real-time and beeps to alert users of any abnormalities.

Communication Function: Connecting with the alarm system to transmit alerts.

Model: CIE-GC02	Size (mm): 240x205x60(W*D*H)
Gas: Non-flammable and explosive gases such as CO_2	Weight: 3kg
Gas Supply Pressure Range: 0.05-0.65MPa	Rated Voltage: AC220V/50Hz
Gas Output Pressure Range: 0.05-0.65MPa	Power: 25W

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