

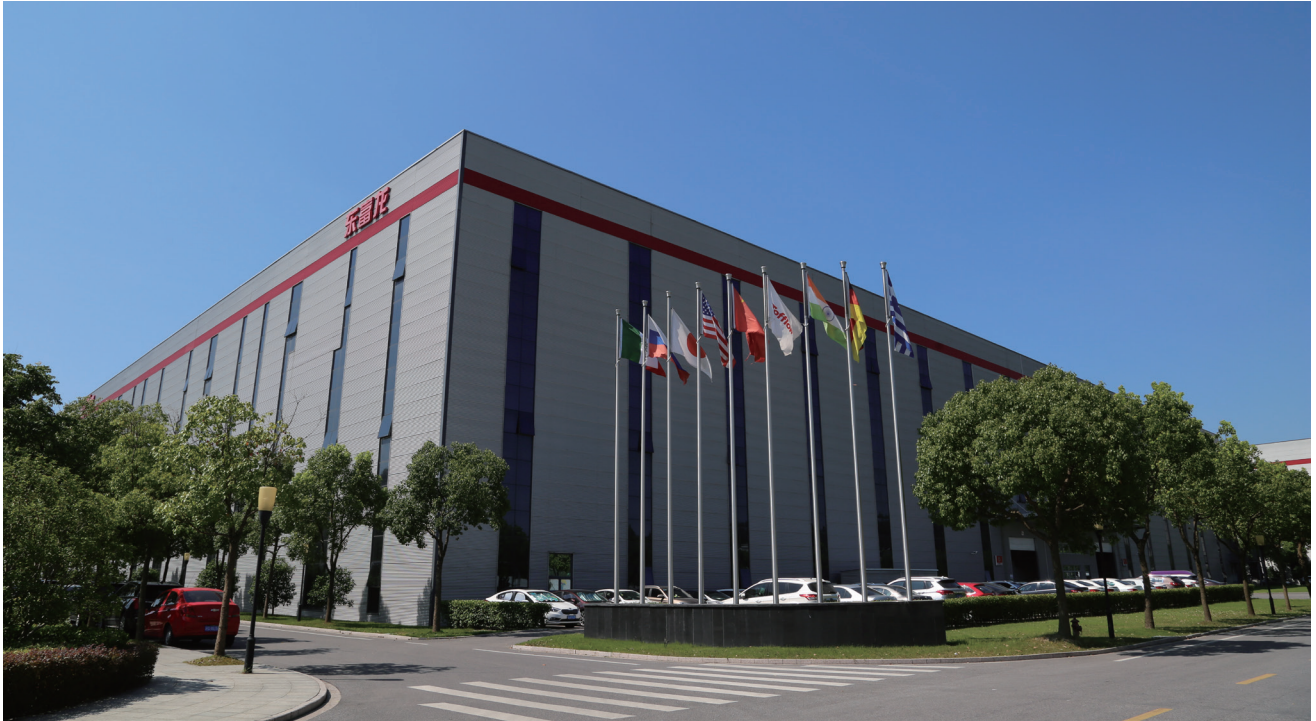
Tofflon



**CFM Automatic Cell Factory Operator&
CFI Cell Factory Incubator**

EXPERTISE IN BIO-PHARMACEUTICAL

Tofflon Life Science Co.,Ltd.



Founded in 1993, Tofflon Science and Technology Group Co., Ltd. (SZ:300171) is a pioneering Chinese enterprise in the field of biotechnology, with a rich history of 30 years. With annual sales reaching 5.4 billion RMB in 2022 and a global workforce of 5,500 employees, Tofflon has established over 50 offices worldwide, embodying a globalized business and team.

Tofflon Life Sciences Co., Ltd., the flagship subsidiary within the group, plays a pivotal role in their portfolio. It focuses on the research and development of cutting-edge technologies in the biopharmaceutical and life science industries. As a strategic division Tofflon life science provides one-stop solutions and services that integrate bioprocessing equipment, core consumables like sterile bags, culture media, resins to further enquire and professionally.

- In the realm of cell therapy, we offer complete solutions for the preparation and production of immune cell pipelines, stem cell pipelines, tumor cell vaccines, and more.
- For gene therapy, we provide overall solutions for the research, development, and industrialization of nucleic acid drugs (mRNA/DNA) and viral vector drugs.
- In the field of biological sample banking, we conduct research and development of automatic sample storage management systems to provide comprehensive solutions for cell seed and tissue samples.
- In the consumables sector, we have developed a complete range of products including disposable bags (culture bags, mixing bags, storage bags), bio-reagents (culture media, cryoprotectants, Ficoll, growth factors), resin (GFC, AC, AEX, CEX, HIC, MMC), filtration (microfiltration, deep filtration, TFF, cassette), and hard packaging materials.
- We also focus on disinfection, offering comprehensive solutions for clean room disinfection, surface and external disinfection, infection control, terminal disinfection, and multi-drug resistant microorganism disinfection, ensuring effective environmental disinfection.

Leveraging Tofflon Group's extensive expertise in design, manufacturing, engineering construction, and after-sales service worldwide, Tofflon Life Sciences Division is committed to serving the biopharmaceutical industry with enhanced speed and professionalism.

CFM Automatic Cell Factory Operator

CFM Automatic Cell Factory Operator is an intelligent device specially used for 2D oscillation and 3D turnover of cell factory. It is mainly composed of plane oscillation mechanism, lifting mechanism and turnover mechanism. Through forward and backward oscillations, left and right oscillations, diagonal oscillations, circumferential oscillations and compound oscillations, the adherent cells can be peeled off more efficiently and scientifically. By tilting forward and backward and turning left and right, it can realize the function of automatic liquid inlet, outlet and equal separation of each layer of culture liquid.

Product Feature

- ✓ The oscillations and reversals of the cell factory are combined to save time and effort and reduce the risks associated with inserting and removing lines
- ✓ Adopt full electric + compressed air drive to eliminate hydraulic oil leakage caused by hydraulic drive system
- ✓ Integrated design, no exposed cables, touch screen operation, can store a variety of automatic operation process
- ✓ Front safety light curtain, both sides of the plexiglass isolation, to ensure the safety of operators

Product Application

- ✓ Cell culture processes used in biomedicine, vaccine production and scientific research.

Technical Specification

Item	Parameter
Overall dimension	1950*1680*1680mm
weight	1270kg
Maximum rotation Angle	-30°~+150°
Maximum dip Angle	-20°~+30°
Maximum oscillation range	50*50
Maximum rotation speed	120°/S
Maximum tipping speed	30°/S
Maximum linear oscillation velocity	0.2m/s
Maximum load	120kg
Equipment power	380V/≤7.65kw

Product Function

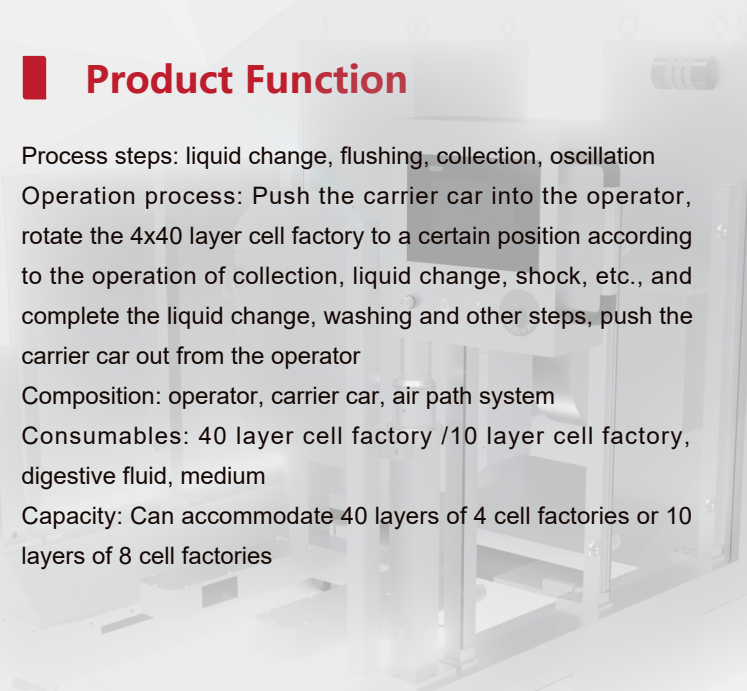
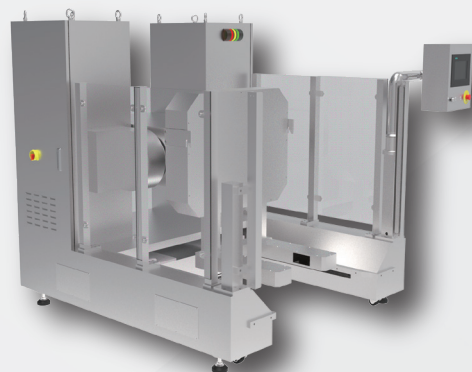
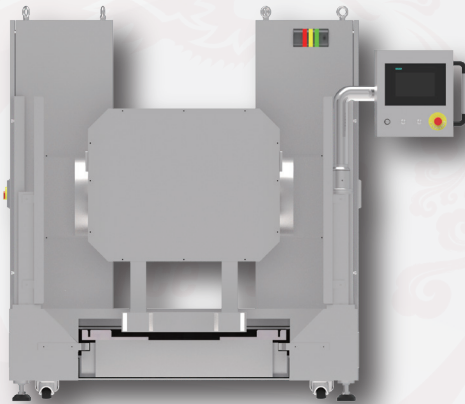
Process steps: liquid change, flushing, collection, oscillation

Operation process: Push the carrier car into the operator, rotate the 4x40 layer cell factory to a certain position according to the operation of collection, liquid change, shock, etc., and complete the liquid change, washing and other steps, push the carrier car out from the operator

Composition: operator, carrier car, air path system

Consumables: 40 layer cell factory /10 layer cell factory, digestive fluid, medium

Capacity: Can accommodate 40 layers of 4 cell factories or 10 layers of 8 cell factories



CFI Cell Factory Incubator

CFI Cell Factory Incubator is used for large-scale cell culture in 40-layer and 10-layer cell factories. In the process of culture, temperature, humidity and carbon dioxide concentration are accurately controlled to provide a good environment for cell culture. With the CFM Automatic Cell Factory Operator, it can prevent cross infection caused by cell culture, harvest and other operations.

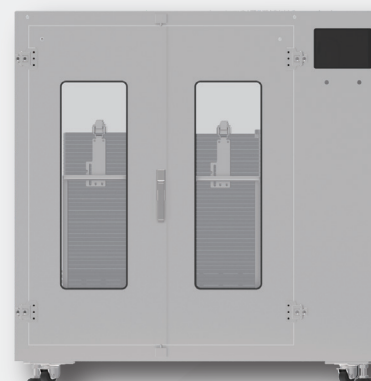
Product Feature

- ✓ With microwave UV lamp reservation disinfection function
- ✓ Meet the requirements of Level 3 permissions, electronic records, and electronic signatures
- ✓ It can realize the function of data recording, alarm data and report export in the process of cultivation
- ✓ Active ventilation (forced ventilation) can be performed on 8 sets of 40-layer cell factories with active ventilation function

Product Application

- ✓ Has universal application in vaccine production; There are also cell therapy, antibody preparation, gene therapy and other fields.

Technical Specification



Item	Parameter
Lumen volume (L)	2000L
Temperature control range (°C)	RT+5 ~ 45°C
Temperature uniformity (37°C)	±0.5°C
Heating mode	Box 6 side direct heating
Sterilization method	Microwave ultraviolet sterilization
Display content	Carbon dioxide, oxygen, temperature and humidity
Safety function	High/low temperature alarm, low air pressure alarm, open/close alarm
material	Inner chamber 316L stainless steel, housing 304 stainless steel
Internal dimension	1140 W *1250 D *1380 H mm
External dimension	1670 width *1370 depth *1720 height mm
Equipment power	220V/≤1.4kw
Intracavity compatibility	40-layer cell factory can hold 8 cells; The 10-layer cell factory holds 16
Alarm function	a. High temperature/low temperature b. High carbon dioxide concentration/low temperature c. Open/close door alarm d. Fan fault alarm, etc

■ Carriage Car



■ Technical Specification

Item	Parameter
Overall dimension (LxDxH)	970x370x1100mm
Weight (full load)	110Kg
material	304 stainless steel trolley, 316L stainless steel frame
function	Transfer the cell factory between the cell factory incubator and the operator
Cavity capacity compatibility	There were 16 10-layer cell factories and 8 40-layer cell factories. 36 layers (high density) number of 16



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