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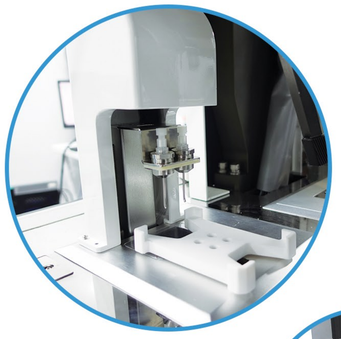
INNOSMART® MONOCLONE

Smart Monoclonal Picking

Automated Monoclone Solution

INNOSMART® MONOCLONE

- Integrated operation of seeding, cultivation and picking
- Compact design: 175×116×235 cm (69×46×93 inch)
- High throughput, >30,000 samples per day
- Low consumable costs
- Internal chamber with a fully controlled environment to prevent sample cross-contamination
- Entire process designed for human-like operations and rapidly evolving processes
- Flexible process editing capability and rapid process during the R&D phase



1 Pumping Module

Culture medium replenishment reservoir

2 Well Plate Gripper Robot

Rapid and convenient for material transfer

3 4-Channel Pipetting

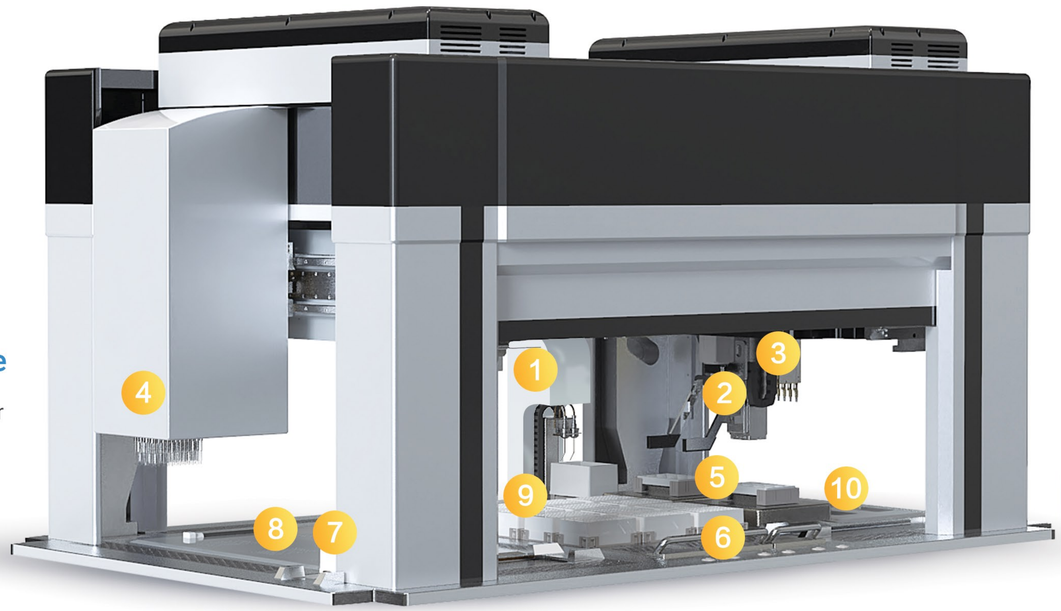
High-throughput coating and sampling, flexible liquid handling

4 96-Channel Picking Head Module

- High efficiency: ≥ 1,500 monoclones per hour
- 24/7 Unmanned operation
- Laser distance measurement and intelligent image
- Precise positioning
- Adaptive picking height
- Effective picking rate >99%
- Flexible settings for clone picking numbers and acquisition parameters

5 Dual Shaker Units

- Coating with flexible process



6 Slide Table

Efficient sample loading and unloading, precise positioning

7 Dual Picking Stations

LED backlight with adjustable brightness

8 Monoclone Picker CIP (Clean in Process)

Monoclone picker cleaning, disinfection and high-temperature drying

9 Cover Plate Placement Platform

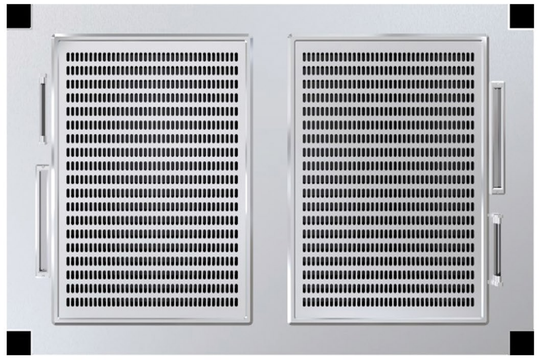
Buffer station for high-throughput well plate cover

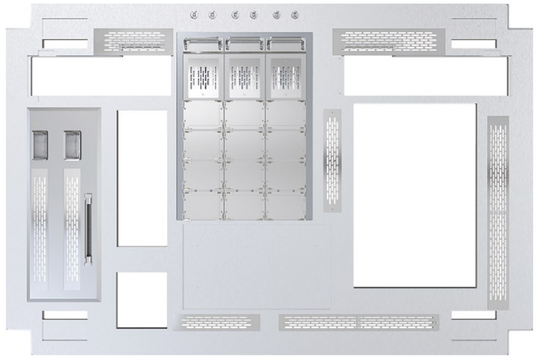
10 Waste Material Recycling Component

Continuous recovery operation of tips and waste liquid

Laminar Flow Structure

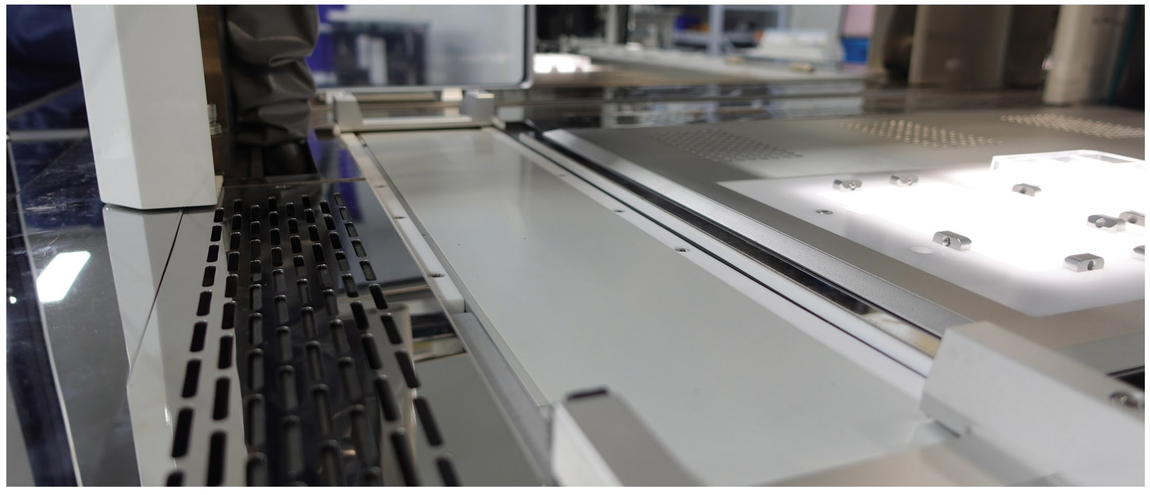
FIFO laminar flow to prevent cross-contamination and residue of samples





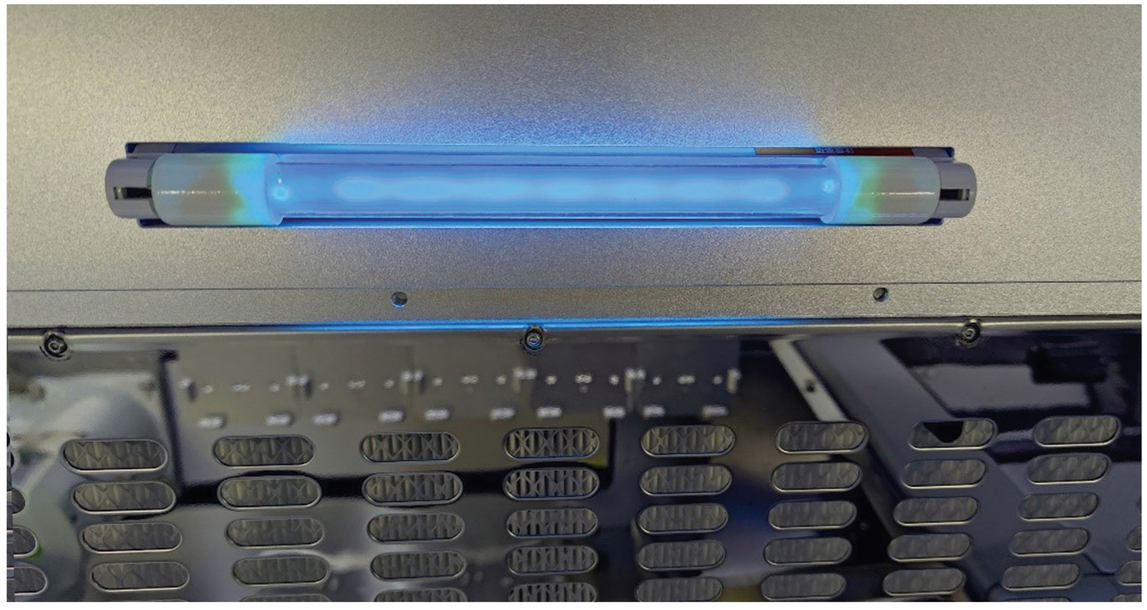
Lift Door and Conveyor Components

Double-sided lift doors and conveyor belt, compatible with external automation equipment



Ultraviolet Sterilization

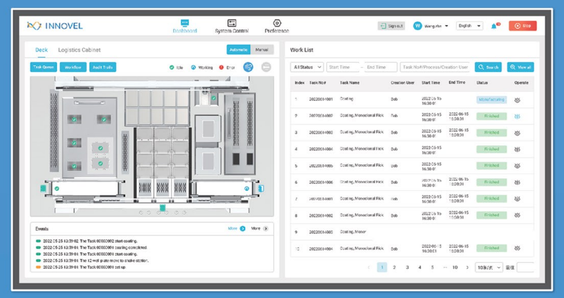
Efficient sterilization to prevent residue of microorganisms and nucleic acid fragments



Polished Surface

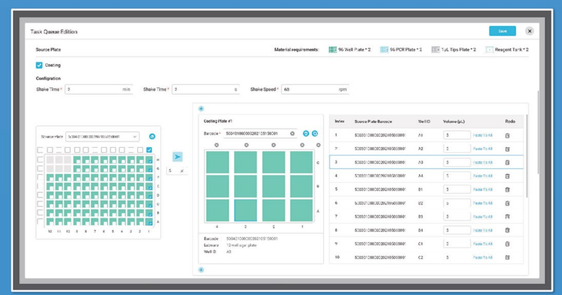
Polished surface facilitates easy cleaning, preventing microbial growth

Comprehensive Software System



Equipment Operation Monitoring and Control

·Intelligent image identification and storage
·Historical data for sample liquid operations, seeding operations, monoclone picking, and material transfer operations
·Management of material status at each workstation
·Monitoring of operating status for each equipment module



Task and Process Flow Editing

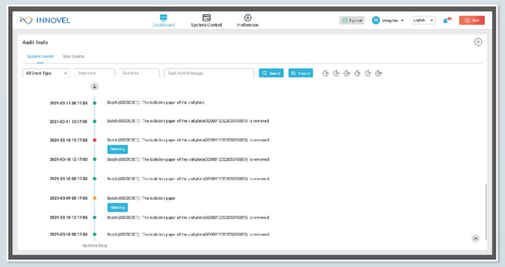
·Full-process process editing and management
·Provision of standardized process templates
·Real-time process control and adjustments

Data Storage

·Storage of original image data for monoclone

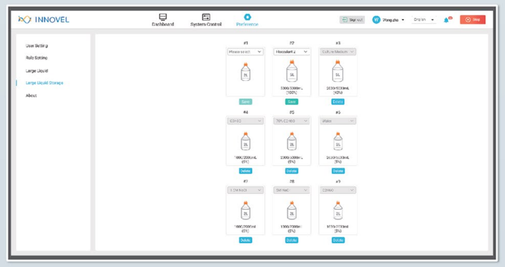
Device Debugging (Manual Operation Mode)

·Calibration of various motion modules within the system
·Calibration of various liquid units within the system
·Process demonstration and guideline



Log Prompt

·Record login information of operators
·Capture material loading details
·Log equipment malfunction, warning messages and operational information during runtime



System Settings

·Personnel permission settings
·Configuration of liquid unit operation parameters
·Configuration of system module parameters
·Configuration of intelligent image recognition for monoclone samples
·Configuration of liquid pipeline types
·Configuration of coating motion parameters
·Configuration of liquid capacities