semi automated microplate sealer for heat-sealing films

Semi automated microplate sealer utilizes heat sealing technology to effectively prevent evaporation, leakage and cross-contamination of samples during experiments by tightly bonding the heat sealing film to the microplate.

Semi Automated Microplate Sealer

Main Features

1. Rapid warming system: Efficient heating element heats up to 170°C in 300 seconds, minimizing preheating time.
2. Intelligent chamber control: Motor-driven chamber door with anti-pinch protection—automatically reverses if obstruction detected.
3. All-electric design: No need for external compressed air—energy-saving, environmentally friendly, simple installation and maintenance.
4. Height automatic identification: Built-in sensor detects plate type for accurate film positioning, preventing sealing bias and compaction.
5. Flexible parameter settings: Adjustable sealing temperature (100–200°C), time, and pressure for different membranes and experiment needs.

6. Energy-saving sleep mechanism: Auto-standby after 60 min, deep sleep after 120 min—reduces energy use, extends equipment life.
7. Easy maintenance: Chamber structure is designed for easy disassembly, cleaning, and membrane replacement.
8. Compact footprint: Only 370×178mm—fits tight bench spaces.

Equipment Advantages

1. High-throughput partner: Seamlessly works with PCR/qPCR instruments for batch sealing—ideal for reproducible experiments.
2. Consistent operation: Automated sealing delivers uniform pressure and temperature, reducing human error and improving reproducibility.
3. Film compatibility: Suitable for various heat sealing films—anti-volatile, transparent, puncturable, permanent, and more.
4. Protects sample integrity: Uniform, firm seals prevent contamination, volatilization, and sample loss during storage, centrifugation, or transport.

Working Principle

Utilizes thermo-pressure bonding: Heating module brings sealing film to set temperature, then mechanically presses it onto plate surface. The film's hot melt adhesive softens and bonds to plate for a solid seal. Microcomputer control ensures real-time regulation of temperature, time, and pressure for stable, consistent results. Advanced models offer closed-loop feedback for even more precise heat sealing.

Application Fields

1. Life science labs: PCR/qPCR system sealing, DNA/RNA sample protection.
2. Medical testing/IVD: Blood/cell culture plate sealing, sample stability, cross-contamination prevention.
3. Food/environmental testing: High-throughput sample sealing—prevents leaks/evaporation during transport.
4. Drug screening/R&D: Compound library management, plate sample processing for high-throughput screening.
5. Universities/research: Molecular biology teaching, cell physiology sample sealing/preservation.

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Model	**SP10**
Temperature range	80°C to 200°C
Temperature accuracy	±1°C

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Model	**SP10**
Sealing time	0.5 seconds to 9.9 seconds, 0.1 seconds increments
Heater cooling during film sealing	⩽2°C, returns to normal in 25 seconds
Heating principle	electric heating tube heating
Power supply	220Vac, 50hz, 110Vac, 60Hz, 300W
Overall dimensions	370mmx178mmx330mm
Weight	11.5kg