microplate heat sealer with over-temperature protection

The manual microplate heat sealer is an economical device designed to meet the needs of high throughput sample sealing in laboratories, and is often referred to as a manual plate sealer or heat sealer.

Manual Microplate Heat Sealer

Main Features

1. Rapid temperature rise: Efficient heating plate reaches 170 °C in just 300 seconds—shortens sealing prep time.
2. Strong compatibility: Supports a wide range of microplate sizes/materials and sealing membranes (general, heat, puncturable, optical) without extra accessories.
3. Precise adjustable control: Set sealing temperature, time, and pressure for uniform, reliable sealing as required by your experiment.
4. Drawer-type operating table: Sliding tray makes microplate placement easy and safe—improves efficiency and reduces burn risk.
5. Ergonomic design: Compact, stable, and the handle follows natural hand movement—minimizes fatigue during repeated use.

6. Multiple safety protection: Dual software/hardware overheat protection ensures long-term safety and stability.

Advantageous Highlights

1. Cost-effective solution: Lower cost and simpler maintenance than automated systems—ideal for small labs or teaching use.
2. Reliable, consistent sealing: Heat and pressure deliver firm, uniform seals—avoids crooked edges, leaks, and cross-contamination common with manual pressing.

Working Principle

Combines heat sealing technology with manual pressure: User presses microplate and film together; heating element brings film to melting point, bonding it securely to plate opening. Microcomputer module regulates time/temperature, with real-time thermal sensor monitoring for safety. Sealing completes in seconds with precise, even adhesion.

Application Areas

1. Molecular biology: PCR/qPCR sample sealing, DNA/RNA extraction preservation.
2. Clinical medicine/IVD: ELISA plate, cell culture plate sealing for long-term storage and contamination prevention.
3. Drug screening/life science R&D: Sample pretreatment, compound library management, micro-reaction sealing.
4. Teaching/research: Demo experiments, student training, medium-throughput project support.

Model	SP20
Temperature range	80°C to 200°C
Temperature accuracy	±1°C
Sealing time	0.5 seconds to 9.9 seconds, 0.1s increments in 10s, 1s increments outside 10s
Film sealing interval	30 seconds
Height of sealing plate	9 mm to 48mm
Heater cooling during film sealing	⩽2°C, returns to normal in 25 seconds
Heating principle	electric heating tube heating
Power supply	220Vac, 50-60Hz, 400W
Overall dimensions	324x216x353mm
Weight	11kg