

paddle blender with uv sterilizing lamp and heating function

The design concept of the paddle blender is to fully homogenize solid or semi-solid samples contained in sterile bags by mechanical clapping, thus releasing microorganisms or target components in the samples and forming representative test samples.

Paddle Blender

The paddle blender provides uniform distribution of microorganisms without damaging sample structure and prevents cross-contamination. It is widely used in food safety, biomedicine, disease research, and related fields.

Features

1. Non-contact homogenization: Samples are fully enclosed in disposable sterile homogenization bags, preventing direct contact with equipment and cross-contamination.
2. Efficient sterilization: Built-in UV disinfection lamp for chamber sterilization during standby or between runs, ensuring a clean operating environment.
3. Intelligent control system: HD LCD screen, intuitive interface, memory for homogenization time/speed, and storage for three common programs to boost efficiency.



4. Multiple safety mechanisms: Voice alarm system with prompts for short-circuit, disconnection, over-temperature, work completion, and a safety door with photoelectric sensors that stops operation when opened to prevent misuse.
5. Easy to clean and maintain: Full-open mirror stainless steel door, removable handle design, and transparent observation window for real-time monitoring and easy cleaning.
6. Flexible beat adjustment: Adjustable beat intensity and distance for processing samples of various textures and volumes.
7. Hygienic and reliable structure: Contact parts made of 304 or 316 sanitary stainless steel, ensuring safety and hygiene for long-term use.

Working Principle

Motor-driven twin paddle plates repeatedly slap the sample in a sterile bag for a set frequency and duration, efficiently crushing, dispersing, and mixing without mechanical blades. This process releases microorganisms, proteins, toxins, DNA, and other components into the homogenizing solution while maintaining their integrity and activity. The method avoids damage from heating or physical shearing, making it ideal for heat-sensitive or structurally sensitive samples.

Application Areas

1. Food industry: Sample prep for microbial contamination and pesticide residue analysis (meat, dairy, fruits/vegetables, seafood, etc.).
2. Pharmaceutical and clinical: Homogenization of tissue samples (e.g., tumors) for cell culture, isolation, or genetic analysis.
3. Cosmetic testing: Microorganism extraction to ensure product safety.
4. Environmental monitoring: Quantitative detection of microorganisms in soil and water.
5. Disease control and epidemic monitoring: Preparation of animal/human tissue samples for pathogen detection.
6. Teaching and scientific research: Laboratory use for microbiology, bioengineering, food engineering, and related studies.

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Model	P300	P300V
Control method	3 segment programming	multi segment programming
Timer	0 to 99m59s or run continuously	
Batting Speed	3 to 12 time/s/td>	
Parameter storage	3 groups of programs	12 groups of programs
UV Sterilization	No	yes, 5 minutes lifecycle
Volume	3 to 400ml	
Temperature setting range	ambient temperature to +60°C	
Temperature control range	ambient temperature to +60°C	
Homogenizing bag size	300x170mm	

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Model	P300	P300V
Power	200W	500W
Power supply	230Vac, 50/60Hz	
Dimensions	430mmX245mmX280mm	
Weight	16kg	