

HAND-HELD ULTRASONIC PROCESSORS



Product I Introduction

UP-250S / UP-400S Hand-held ultrasonic processors is a multifunctional and versatile instrument that uses strong ultrasound to produce cavitation effects in liquids for ultrasonic processing of substances, greatly improving the stability and reliability of the instrument. It can be used for the homogenization of various animal and plant cells, virus cells, as well as for emulsification, separation, homogenization, extraction, defoaming, cleaning, and acceleration of chemical reactions, etc. It is widely used in the fields of biochemistry, microbiology, pharmaceutical chemistry, surface chemistry, physics, zoology, and other fields.




Product I Application

- ◆ Can be used for 96-well enzyme-linked immunoassays and numerous small test tubes. The handheld ultrasonic transducer can be used to control ultrasound in a pulsing manner, allowing multiple samples to complete ultrasound processing in a short period of time.
- ◆ Used for crushing animal and plant cells, bacteria, spores or tissues, extracting proteins from cells, and conducting scientific culture experiments on viruses and vaccines.
- ◆ Speeds up chemical and physical reactions and accelerates liquid degassing.
- ◆ Used for scientific analysis of crude oil dilution, oil-water emulsification, acceleration of decrystallization, glass pulp homogenization, and more.
- ◆ Disperses rare earths, various inorganic minerals, and prepares nearly nanometer-sized latex homogenized mixtures.
- ◆ Quick, powerful, and high-precision cleaning of mold micropores and blind holes.



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Probe I Selection

Model	Cell Lysis Capacity	Image
Φ2mm	150ul—5ml	
Φ3mm	200ul—10ml	
Φ6mm	10ml—300ml	

Note: Titanium Alloy Probe Related Properties

- Heat-resistant
- Autoclavable
- Corrosion-resistant

Cup I Selection

Model	Specification	Image
DT-50BF	50ml	  
DT-100BF	100ml	
DT-400BF	400ml	

Note: Rosette cell related Properties

- Optimal fluid circulation
- Good heat dissipation
- Homogeneous sound reinforcement results

Intensität
100
95
90
85
80
75
70
65
60



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Product | Features

- Large touch screen display for intuitive parameter adjustment.
- Compact transducer for easy handheld operation, equipped with momentary push-button for more convenient operation.
- Versatile functions: cell disruption, homogenization, separation, extraction, defoaming, cleaning, and acceleration of chemical reactions.
- Continuous and uninterrupted ultrasonic processing, with automatic frequency tracking, automatic resonance point and power control, eliminating the need for frequent manual energy adjustment.
- Ultrasonic probe is made of US standard TC4 titanium alloy, ensuring long-term use without wear and tear.
- Automatic amplitude and pulse compensation function to ensure that the probe amplitude does not change due to load changes during sonication.



Noise Protection Box

Model	Specification	Image
DT205	Noise protection box (with a manual lifting table)	 

Note: Noise Protection Box Related Properties

- Optimum noise reduction
- Viewing window for process observation
- The manually adjustable height table makes it easy to adjust the crushing cup to the desired position.

Technical | Parameters

Model	UP-250S	UP-400S
Power	250W	400W
Power Control Range	1~100%	1~100%
Processing Volume	0.5~100ml	0.5~300ml
Operating Frequency	19-25KHz, automatic search range of ± 450 Hz	19-25KHz, automatic search range of ± 450 Hz
Operating Frequency Display	4.3 inch color LCD screen	4.3 inch color LCD screen
Control Mode	Automatic, manual switchable (optional foot switch)	Automatic, manual switchable (optional foot switch)
Total Time Setting	0.1~999 min	0.1~999 min
Pulser Time / Intermittent Time	0.1~99.9 sadjustable (gap/working) / 0.1~99.9s	0.1~99.9s adjustable (gap/working) / 0.1~99.9s
Sample Temp Protection Setting	Available	Available
Random Amplitude probe	$\Phi 3$	$\Phi 6$
Optional Amplitude probe	$\Phi 2$	$\Phi 2/\Phi 3$
Protection Alarm	Over-temperature, overload, abnormal transducer	Over-temperature, overload, abnormal transducer
Power Supply	AC110/220V F50/60Hz	AC110/220V F50/60Hz
Main Unit Size	270*210*140 mm	270*210*140 mm
Total Weight	4.2 KG	4.5 KG