



Probe Sonicator

Ultrasonic processor, also known as ultrasonic disintegrator, ultrasonic homogenizer, ultrasonic cell crusher, ultrasonic nano-material disperser, etc. The ATH series is a kind of cavitation effect that uses strong ultrasound to produce cavitation effects in liquids and ultrasonically treat substances. A functional, multi-purpose instrument that can be used to break a variety of animal and plant cells, virus cells, and can be used for emulsification, separation, homogenization, extraction, defoaming, cleaning, and accelerating chemical reactions. It is widely used in biochemistry, microbiology, medicinal chemistry, surface chemistry, physics, zoology and other fields.

Main Applications

- Used for crushing animal and plant cells, bacteria, spores or tissues, extracting protein from cells, and conducting scientific culture experiments of viruses and vaccines.
- Accelerate the reaction speed of chemistry and physics and accelerate the degassing of liquid.
- Scientific analysis of crude oil dilution, oil-water emulsification, accelerated de-crystallization, and glass homogenization.
- Disperse rare earths, various inorganic minerals, and prepare a homogenized mixture of nearly one percent of nanometer emulsion.
- Quick, powerful and high-precision lotion for mold micro-holes and blind holes.



Features:

- Large touch screen (TFT) is easy to read.
- High Quality and Reasonable Price, Time setting.
- All models with temperature indicator and controller.
- Auto-tuning for convenience use and optimal processing efficiency.
- Power-emitted display for accuracy and repeatability, Variable power output, 0-900 watts.
- Equipped with a soundproof box to reduce noise pollution during ultrasonic operation.
- These machines are controlled by microcomputers.
- The microcomputer regulates the ultrasonic frequency for more reliable operation.
- The machine will automatically give a warning signal if it malfunctions.
- Protective container prevents contamination and keeps noise level low during operation.
- Very wide range for power adjustment: the power level can be set between 1 and 99.9%, giving users control for more sensitive applications.
- Various sizes of ultrasonic poles can be purchased: very small-diameter probes can concentrate the power in very small volume samples (excellent for cell disruption of very small samples); larger-diameter probes are necessary for larger samples (especially useful for forming homogenous mixtures of larger volumes).
- It can be used to break the efficient cell wall of plant cell tissue and extract more specific substances. It has been widely used in crushing and extraction of cannbi. (herbal extraction and 420 crushing extraction).

Applications:

- **Preparing Laboratory Samples:**
Cell disruption (lysis) breaks open cell walls for study of cell contents. Power can be controlled precisely for disrupting more delicate cells/subcellular membranes.
- **Destroying Pathogens on Medical Equipment:**
Cell disruption and heat destroy bacteria and other pathogens for safe, sterile medical equipment.
- **Emulsifying and Homogenizing Solutions of Insoluble Liquids:**
Powerful ultrasonic waves achieve very small particle size.
- **Creating and Homogenizing Solutions and Suspensions:**
Very powerful cell dispersion and deagglomeration ensures that the suspension will not settle out for a long time.
- **And many other applications involving cell disruption, dispersion, deagglomeration, homogenization, or emulsification in many different fields such as biology, physics, pharmaceuticals, zoology and many others.**

Technical Specifications:

Models	Ultrasonic Frequency (KHZ)	Maximum Power(W)	Optional Variable Amplitude Lever(ϕ) mm	Included with Machine	Capacity per time (ml)
ATP-150	20-25	150	2,3,8	6	0.2-150
ATP-250	20-25	250	2,3,6,10	6	0.2-250
ATP-650	20-25	650	2,3,6,10,12	6	0.2-500
ATP-900	20-25	900	2,3,6,10,12,15	10	0.2-600
ATP-1000	20-25	1000	2,3,8,10,12,15	15	0.2-800
ATP-1200	20-25	1200	10,15,22,25	22	20-1000
ATP-1800	20-25	1800	10,15,22,25,28	25	20-1200

• Ultrasonic generator	single
• Vibration System (Transducer Assembly)	single
• Soundproof box	single
• Cross clamp (in soundproof box)	single
• Test tube clip (in soundproof box)	single
• power cable	root
• Special wrench (for disassembling the horn)	set
• fuse 8A and 5A double user's Guide	a part
• Certification	a part
• Warranty Card	a part



ATHENA TECHNOLOGY



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