

# ADVANCED ULTRASONIC PROCESSOR / HOMOGENIZER / CELL DISRUPTOR



## Features:

- The ultrasonic systems 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
- LCD display for easy reading
- Wide range of power adjustment: The power level can be set between 1 and 99.9%, giving users control for more sensitive applications
- Various sizes of ultrasonic horns are available: very small-diameter horns can concentrate the power in very small volume samples (excellent for cell disruption of very small samples); larger-diameter horns are necessary for larger samples (especially useful for forming homogenous mixtures of larger volumes)

## Applications:

- Preparation of 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 de-agglomeration ensures that the suspension will not settle out for a long time
- And many other applications involving cell disruption, dispersion, de-agglomeration, homogenization, or emulsification in many different fields such as biology, physics, pharmaceuticals, zoology and many others

## BASIC FUNCTION:

This ultrasonic cell crusher can be used to crush cells of various kinds of animal and plant, virus, bacteria. It can also be used in emulsification, separation, distribution, collection, cleaning, and nm-materials preparation, dispersion, acceleration of chemical reactions etc.

Model	JY92-IIID	JY98-IIID	JY99-IIID
Frequency	20 – 25 KHz (auto tracked)	19.5 – 20.5 KHz (auto tracked)	20 – 25 KHz (auto tracked)
Power	900 W (adjustable)	1200 W (adjustable)	1800 W (adjustable)
Capacity	0.5 – 600 ml	50 – 1000 ml	50 – 1200 ml
Duty Ratio	0.1 – 99.9%	0.1 – 99.9%	1 – 99%
Standard Horn (∅)	∅6 mm	∅20 mm	∅20 mm
Optional Horn (∅)	∅2, 3, 10, 12, 15 (mm)	∅15 mm, 25 mm	∅25 mm, 28 mm
Power Supply	220/110V, 50Hz/60Hz	220/110V, 50Hz/60Hz	220/110V, 50Hz/60Hz

## Titanium Alloy Horns (Tips)



Horn Size	Frequency	Power	Crusher Capacity
∅2	20-25KHz	20-250W	0.5-5ml
∅3	20-25KHz	30-400W	3-10ml
∅6	20-25KHz	60-650W	10-100ml
∅10	20-25KHz	100-950W	100-200ml
∅15	19.5-20.5KHz	200-950W	200-500ml
∅20	19.5-20.5KHz	400-1200W	500-1000ml
∅25	19.5-20.5KHz	800-1800W	500-1200ml

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