



SONIC Series, Ultrasonic Cell Disrupter Homogenizer:

It is also called Ultrasonic homogenizer, processor or disrupter. A Sonicator system is comprised of 3 major components: Generator, Converter and Horn (also known as a probe). The new model of the SONIC features: Series is integrated with Temperature Monitor optional. LCD display screen clearly displays all operating parameters and options: Temperature,time,output power etc. Temperature monitor to protect sample from overheating.

Features:

Full amplitude control: Amplitude (intensity) can be set from 1-100% giving a greater degree of resolution and the ability to pinpoint the amplitude needed to effectively process your sample.

Programmability: Parameters including processing time, pulse on/off and power output ,it can be saved to memory and run by the touch of a button. This new system can store more than 50 custom programs.

Pulse mode: Adjustable pulse On and Off times to reduce the heat gain in temperature sensitive samples.

Auto tuning: The Sonicator digitally tracks frequency changes in the converter/ tip assembly caused by load and temperature changes and maintain electrical efficiency at all times. Manual tuning is unnecessary.

Temperature monitoring: An optional temperature probe is available for those customers who wish to monitor the temperature of their sample. If the temperature limits reached, sonication shuts down to prevent overheating.

Applications:

Biological / Biotech: Sonication is an ideal tool for lysing bacteria, yeast and tissue cells for the extraction of protein, DNA, RNA, and cellular components. DNA shearing (ChIP Assay) is a very common application.

Pharmaceutical: Cell disruption is common in analytical, quality control, and R & D labs to perform numerous functions from mixing and degassing of analytical samples, to cracking open tablets for dissolution tests. Liposomes and emulsions are easily formed by Sonication for microencapsulation purposes in the production of creams and lotions.

Chemical:

Sonication accelerates both physical and chemical reactions.,Major advances in sonochemistry include chemical synthesis of catalysts and new alloys, catalyzing organometallic reactions, micro-encapsulation of protein and hydrolyzing esters. The use of sonication provides greater yields, increases overall efficiency, and saves energy.

Industrial:

Industrial uses include forming emulsions, catalyzing reactions, extracting compounds, and reducing particle size. Continuous.

Environmental:

Sonication is used by environmental testing labs to process soil and sediment samples. Sonication takes just 8-10 minutes per sample versus 4-18 hours by soxhlet extraction, it uses half the solvent and improves yields.

Model	Ultrasonic frequency	Maximum power	Duty ratio (%)	Optional Probes diameter	Standard probe size included with machine	Capacity (ml)	Temp. control
SONIC-150W	20-25 KHz	150W	1-99%	3mm	6mm	10-100ml	No
SONIC-250W	20-25 KHz	250W	1-99%	3mm	6mm	10-200ml	No
SONIC-650W	20-25 KHz	650W	1-99%	2,3,8,10,12,15mm	6mm	0.5-500ml	No
SONIC-650WT	20-25 KHz	650W	1-99%	2,3,8,10,12,15mm	6mm	0.5-600ml	Yes
SONIC-950WT	20-25 KHz	950W	0.1-99.9%	2,3,8,10,12,15,18mm	6mm	0.5-600ml	Yes
SONIC-1200W	19.5-20.5KHz	1200W	1-99%	15,25ml	20mm	50-1000ml	No
SONIC-1200WT	19.5-20.5KHz	1200W	0.1-99.9%	15,25ml	20mm	50-1000ml	Yes
SONIC-1800W	19.5-20.5KHz	1800W	0.1-99.9%	25,28ml	25mm	50-1200ml	Yes
SONIC-2000WT	19.5-20.5KHz	2000W	0.1-99.9%	6,10,12,15,20,25,28ml	25mm	50-1800ml	Yes

Parameters:

Power Rating: 150 -2000 w
Operating Frequency: 20-22 KHZ
Input power: 100 -240V, 50 - 60Hz
Programmable Timer: 0-999 minutes
Crusher capacity: 0.5-1200 ml (expansion available)
 99 program can be stored.

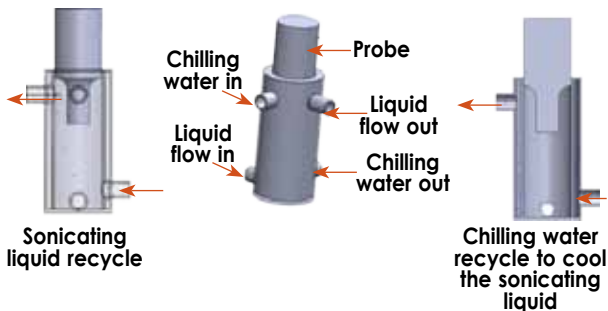
Optional:

Standard Probes - Probes are made from titanium and machined to specific sizes and shapes. When driven at their resonant frequency, they expand and contract longitudinally. This mechanical vibration is amplified and transmitted down the length of the probe. In liquid, the probe causes cavitation which constitutes the main mechanism for sample processing. Choosing the appropriate horn is extremely important. The sample volume to be processed is directly related to the tip diameter.

Cup horn/probe - Cup horn for ultrasonicator : This indirect Sonication eliminates the need for a probe to come in contact with your sample. This technique is often described as a high intensity ultrasonic bath. The ultrasonic energy is transmitted from the horn, up through the water and into a vessel or multiple sample tubes. Indirect sonication is most effective for very small samples because foaming and sample loss are eliminated. Pathogenic or sterile samples are ideal for this method because aerosols and cross contamination are prevented. The Cup Horn and Microplate Horn deliver indirect sonication and are ideal for many high throughput applications.

Microtube holder - up to 2-8 samples (0.1-2ml) can be treated simultaneously. Pressure plate holds tubes in place. Avoid contamination by toxic samples.

continuous cell flow - 316 stainless steel with double walls through which cooling water can circulate, This flow cell allows for 10 L per hour sonication. It works with 10-20mm probes; and with 950w to 2000w sycon ultrasonic processors.



Ordering Information:

- Ultrasonicator includes:
- Generator/transducer
 - Converter with cable
 - One replaceable probe
 - Power cable
 - Wrench set
 - Operation manual
 - Please specify desired voltage for export.

Optional Probes:



Optional CUP:



Optional Glass Cell Flow:

