

# OMNI SONIC RUPTOR

## Ultrasonic Homogenizer

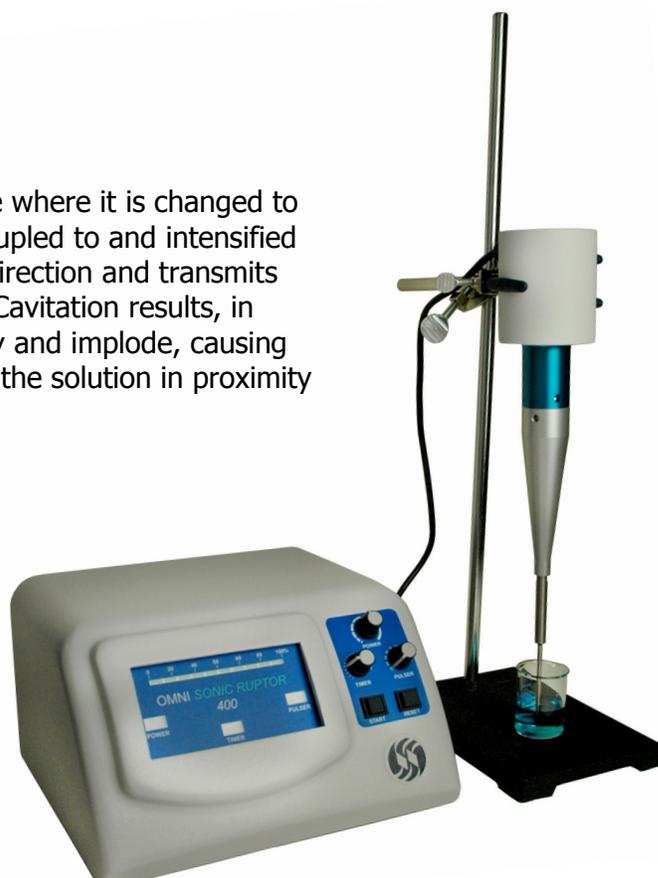
The **Omni Sonic Ruptor Ultrasonic Homogenizer** offers precision engineering with all the features necessary to create a total system for ultrasonic disruption. It can disintegrate most cells, bacteria, spore or tissue. It can prepare an emulsion down to 1/100 of a micron, homogenize "immiscible" liquids, accelerate enzymatic and chemical reactions, stimulate bacterial activity, disperse solids in liquids and degas liquids. The Omni Sonic Ruptor is available in a 400 watt version.

### *How it Works*

The ultrasonic power supply transforms line voltage to high frequency 20 kHz of electrical energy. This electrical energy is transmitted to the probe where it is changed to mechanical energy. The vibrations from the probe are coupled to and intensified by the titanium tip. The probe vibrates in a longitudinal direction and transmits this motion to the titanium tip immersed in the solution. Cavitation results, in which microscopic vapor bubbles are formed momentarily and implode, causing powerful infinitesimal shock waves to radiate throughout the solution in proximity to the radiating face of the tip.

### *Automatic Tuning*

The Omni Sonic Ruptor employs a proprietary feedback system, insuring that the Ultrasonic Homogenizer is always working at its maximum efficiency regardless of the application. There is no need for constant adjustment by the operator. The percentage of ultrasonic power emitted is indicated by the output meter, enabling accurate, reproducible results.



[TheHomogenizerCompany.com](http://TheHomogenizerCompany.com)

# OMNI SONIC RUPTOR

## Ultrasonic Homogenizer

### SPECIFICATIONS

**Variable power:** *OR-250:* 0-250 Watts  
*OR-400:* 0-400 Watts

**Timer:** 0-15 Minutes

**Automatic Tuning:** Allows easy interchange of probe tips.

**Pulse Mode Power:** Allows sample to be processed at full power while limiting temperature rise. Essential for heat sensitive samples.

**Constant Power Mode:** Selectable for non-heat critical sample applications.

### Dimensions

Generator

9.90"(W) x 8/75"(D) x 4.60"(H)  
(25.1 x 22.2 x 11.7 cm)

Transducer

3.5"(Dia) x 5.0"(H)  
(8.9 x 12.7 cm)

### Temperature Range/Humidity Range

0-40°C / 28% - 80%

### Power Consumption

*OR-250:* 250 Watts    *OR-400:* 400

### Sound Abatement Chamber (Optional)

The optional Sound Abatement Chamber reduces cavitation sound emitted during processing when used in conjunction with the Omni Sonic Ruptor Ultrasonic Homogenizer. Harmonics are produced by the vessel walls and fluid surface and can be disturbing with extended operation. The clear Plexiglas door permits viewing of the sample while protecting the operator against accidental splashing. An access port for tubing is also provided for use with the accessory cooling jacket or continuous flow chamber..

### Accessory Tips

A 5/32" (4.0 mm) diameter Micro Tip and 3/8" (9.5 mm) diameter Intermediate tip facilitates processing small volume samples and can be used with narrow neck vessels. These tips are particularly useful for difficult cells because the intensity is up to five times that of the standard tip, which is 3/4" (19.0 mm) in diameter.

### Cup Tip, 250 ml

Used to process contents of sealed tubes, vials or ampoules. Samples can also be processed by placing the sample in a beaker, and the beaker is suspended in the water filled cup tip.

### Cooling Jacket

Used in conjunction with the cup tip, it provides a continuous flow of water, enabling the temperature of the processed solution to be maintained at a desired level.



**Micro Processing Tip (5/32")**

### Continuous Flow Chamber

This chamber permits continuous processing of liquids and is designed for emulsifying and homogenizing applications. The continuous flow chamber may be sealed in a closed system when mounted so that infectious materials can be used. It is equipped with a water flow-through jacket to enable the temperature of the processed solution to be maintained at a desired level..



**Intermediate Processing Tip (3/8")**



**Standard Processing Tip (3/4")**



935-C Cobb Place Blvd  
Kennesaw, GA 30144  
omni@omni-inc.com

800-776-4431  
770-421-0058

[www.omni-inc.com](http://www.omni-inc.com)