OMNI INTERNATIONAL

The Homogenizer Company™

Powerful performance
Quality made in the USA



> Specifications

ORDER NO. 18-000-115

Variable Power: 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:
Control Unit: 9 5/8" (l) x 11 1/8" (w) x 6" (h)
24.45 cm (l) x 28.26 cm (w) x 15.24 cm (h)

Transducer: 3" (w) x 5 5/8" (h)
7.62 cm (w) x 14.29 cm (h)

Temperature/Humidity Range:
0-40°C / 28% - 80%

Power Consumption: 400 watts

Omni Sonic Ruptor 400

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. The Sonic Ruptor can also 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.

> 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.

> 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.

Omni Sonic Ruptor

Ultrasonic Homogenizer Accessories





PRODUCT	INTENSITY	TIP SIZE	VOLUME RANGE	ORDER NO.
Stepped Micro Processing Tip	Very High	Diameter: 5/32" (3.8 mm) Length: 10.1" (25.6 cm)	250 µL - 10 mL	OR-T-156
Intermediate Processing Tip	High	Diameter: 3/8" (9.5 mm) Length: 8.6" (21.8 cm)	10 mL - 250 mL	OR-T-375
1/2" Processing Tip	Medium-High	Diameter: 1/2" (12.7 mm) Length: 5.38" (13.65 cm)	10 mL - 300 mL	OR-T-500
Standard Processing Tip	Medium	Diameter: 3/4" (19 mm) Length: 4.1" (10.5 cm)	25 mL - 500 mL	OR-T-750
Full Size Processing Tip	Low	Diameter: 1" (25.4 mm) Length: 4.85" (12.3 cm)	50 mL - 1 L	OR-T-1000

Sound Abatement Chamber

ORDER NO. OR-A-01

The optional Sound Abatement Chamber reduces cavitational 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.



< Cup Tip, 250 mL

ORDER NO. OR-C-250

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.



< Continuous Flow Chamber

ORDER NO. OR-F-01

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.

> *For more information —*

omni-inc.com

Omni International, Inc.
935C Cobb Place Blvd.
Kennesaw, GA 30144
800.776.4431 • 770.421.0058

CERTIFIED ISO 9001:2008 COMPANY