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- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

### SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

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### WE BUY USED EQUIPMENT

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**Contact us:** (888) 88-SOURCE | [sales@artisanng.com](mailto:sales@artisanng.com) | [www.artisanng.com](http://www.artisanng.com)

The **Vibra-Cell** is the most technologically advanced high intensity Ultrasonic Processor available to the researcher. Extremely versatile, it can safely process a wide range of organic and inorganic material - from microliters to liters. Typical applications include: sample preparation, cell lysing, disaggregation, critical cleaning, homogenization, particle size reduction, soil testing and the acceleration of chemical reactions.

## LIQUID PROCESSING



The **Vibra-Cell** features automatic frequency control circuitry to eliminate the need for constant adjustments, and automatic amplitude compensation to ensure uniform probe tip excursion, regardless of the varying loading conditions encountered during the processing cycle. For dependable performance, all the power supplies incorporate proprietary Stall Prevention Circuitry. The converters are highly efficient, and designed for heavy duty operation - ancillary cooling is not required.

*All Vibra-Cell power supplies and converters are covered by a full three year unconditional warranty.*



### How Does it Work?

The ultrasonic power supply (generator) converts 50/60 Hz voltage to high frequency 20 kHz (20,000 cycles per second) electrical energy. This electrical energy is transmitted to the piezoelectric transducer within the converter, where it is changed to mechanical vibrations. The vibrations from the converter are intensified by the probe (horn), creating pressure waves in the liquid. This action forms millions of microscopic bubbles (cavities) which expand during the negative pressure excursion, and implode violently during the positive excursion. It is this phenomenon, referred to as cavitation, which produces the powerful shearing action at the probe tip, and causes the molecules in the liquid to become intensely agitated.

- **Low Volume** Applications (up to 100 milliliters on a batch basis):
- **Medium Volume** Applications (up to 1 liter on a batch basis):
- **High Volume** Applications (up to 15 liters on a batch basis or 300 liters per hour when used in conjunction with the high volume continuous flow cell):





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