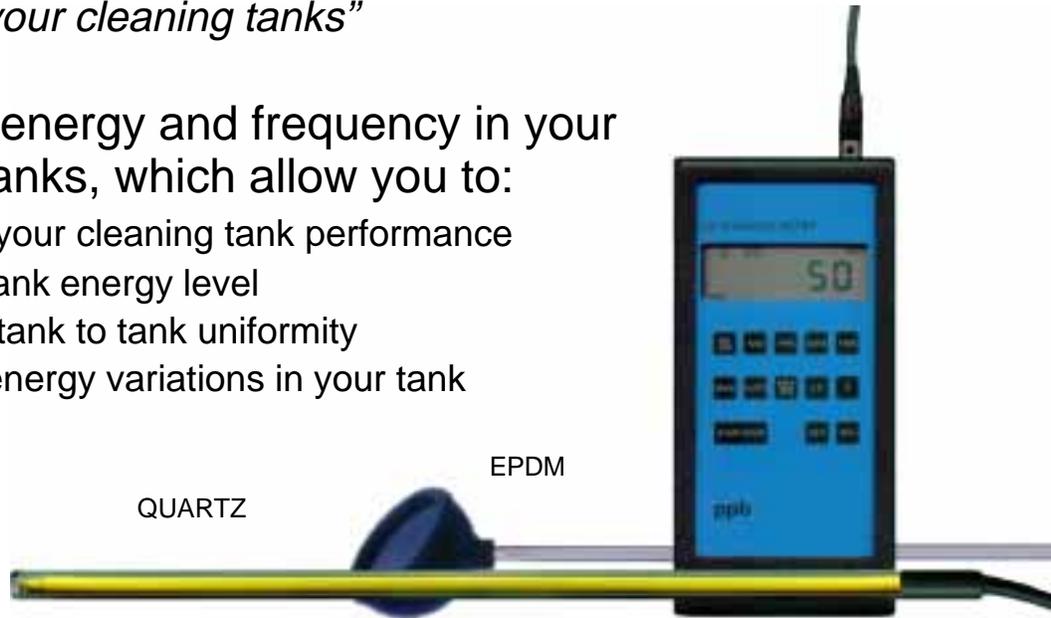


Ultrasonic-Megasonic Cavitation Meters

"smart cavitation meters for your cleaning tanks"

Measures both cavitation energy and frequency in your ultrasonic or megasonic tanks, which allow you to:

- ◆ measure your cleaning tank performance
- ◆ set your tank energy level
- ◆ establish tank to tank uniformity
- ◆ map the energy variations in your tank



Monitoring Transmitter

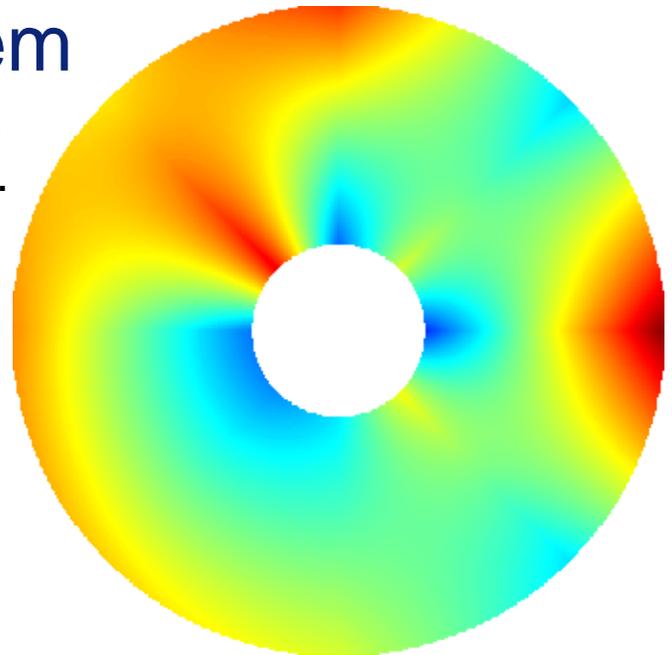
Continuously monitors cavitation energy and frequency in Ultrasonic and Megasonic cleaning tanks.

- ◆ 4-20 mA & 0-10 Vdc energy outputs
- ◆ 4-20 mA & 0-10 Vdc frequency outputs
- ◆ 0 to 5 MHz (5000 kHz) frequency range
- ◆ Din Rail and Wall Mountable

Cavitation Sensor System

Measures the *in-situ* and real-time Disk, Wafer & FPD surface cavitation profiles.

Coming Soon!



ppb

740 13th Street, Suite 325
San Diego, CA 92101 USA
Phone: 619.544.1920
Fax: 650.544.1919
E-mail: sales@megasonics.com
www.megasonics.com

Ultrasonic-Megasonic Cavitation Meters

ppb manufactures four models of meters that measure the cavitation energy and frequency within ultrasonic and megasonic cleaning tanks:

- pb-500 Ultrasonic Energy Meter (0 to 500 kHz)
- pb-100 Ultrasonic Energy Meter II (0 to 500 kHz)
- pb-501 Megasonic Energy Meter (500 kHz to 5 MHz)
- pb-502 Ultrasonic/Megasonic Energy Meter (0 to 5 MHz)

The multifrequency meters detect the RMS energy in W/in^2 and also detect the frequency. Readings are processed 1.5 times per second for fast and accurate display on the front panel LCD.

The meter is battery operated with 100 memory locations. PLC compatible with RS-232 downloading capabilities of date, time, average cavitation energy, standard deviation, maximum, minimum, and frequency.

As a low cost version of the Ultrasonic Energy Meter, the Ultrasonic Energy Meter II measures and displays only instant cavitation energy. All other features are disabled.

SPECIFICATIONS

pb-208 Standard probe suitable for most ultrasonic and megasonic solutions. The probe has three components that come in contact with the liquid:

Half Sphere: made of Ethylene Propylene (EPDM), angled at 45° with the probe tube, 2" dia.

Tube: made of 1/4" OD 316 Stainless Steel with a Teflon wrapping, 20" long.

Lens: made of Quartz (optional sapphire for HF)

pb-308 New All-Quartz probe suitable for almost all ultrasonic and megasonic cleaning solutions, including NMP, SC1, and SC2. The sensor is located at the tip.

Rod: made of Quartz, 1/2" OD, 19" long, sealed.

| | |
|----------------|--|
| Range | 0 to 255 W/in^2 (W/gal) |
| Display | Custom LCD |
| Fluid Temp. | 1° to 80° C (to 200 °C pb-308) |
| Memory | 100 sets: loc, date, time, avg, σ , max, min, Δt |
| Output | RS-232 or serial (9600, 8, 1, n, p) |
| Input | Standard 7.2-volts battery charger (220/110 Voltage adapter available) |
| Power | 7.2-volts Ni-Cad rechargeable |
| Case Materials | Aluminum with Polyurethane baked enamel black paint |
| Dimensions | Case: 4" W x 8" L x 2" H |
| Weight | 2 lb. Complete |

NIST Traceable Calibration Certificate available, 

Monitoring Transmitter

The *bx-502* is a panel-mount-ready unit designed to continuously monitor cavitation energy and frequency in your ultrasonic and megasonic cleaning tanks.

It is designed to provide a non-isolated 4 to 20 mA current output and a 0 to 10 Vdc output which are proportional to the cavitation energy density present within a cleaning tank. The unit also provides a non-isolated 4 to 20 mA current output and a 0 to 10 Vdc output which are proportional to the Ultrasonic-Megasonic frequency.

The transmitter may be connected to a PLC or to a dual display for passive monitoring of both the energy and frequency. The transmitter may also be used to maintain and control the tank energy via a PLC or standard controller by providing a feedback to the generator.

SPECIFICATIONS

The transmitter accommodates both the *bx-208* or *bx-308* probes, which are tank-mountable versions of the pb-208 and pb-308, respectively.

| | |
|-----------------------|--|
| Energy Outputs (2) | 4 to 20 mA, non-isolated 0 to 10 Vdc |
| Energy Units | W/in^2 (W/gal) |
| Frequency Outputs (2) | 4 to 20 mA, non-isolated 0 to 10 Vdc |
| Frequency Range | 0 to 5 MHz (5000 kHz) |
| Power | 22 to 36 Vdc input |
| Case Materials | Aluminum with Polyurethane baked enamel paint |
| Dimensions | 4.275" W x 5.125" L x 1.928" H (2.938" H with DIN Rail Mount) |

