500 and 750 Watt Ultrasonic Processor – 250 microliters to 1 liter\*

Real time display . . .

Time 1:20:30
Pulse 4.0 2.0 Ampl 30%

0 10 20 30 40 50 60 70 80 90 100%

Energy: 0000654 Joules
Time: 0:00:24 H:M:S

0 10 20 30 40 50 60 70 80 90 100%

Elapsed time 0:04:06

143 watts



VC 505 - VC 750

# □ Energy Monitor

Digitally displays the actual amount of energy in Joules (watts x seconds) that is being delivered to the probe.

#### Wattmeter

Digitally displays the actual amount of power in watts that is being delivered to the probe.

# Automatic Tuning and Frequency Control Eliminates the need for constant adjustment of the power supply.

# Microprocessor Based and Programmable Digital accuracy assures adherence to the most exacting protocol.

## □ Automatic Amplitude Compensation

Ensures uniform probe amplitude regardless of the varying loading conditions encountered during the processing cycle.

#### On Demand Real Time Display

Provides a window on the process. No more assumptions. No more approximations. Pressing a button enables all set and run parameters to be continuously displayed on the screen, providing operating mode confirmation without process interruption.

# □ Variable Power Output Control

Allows the ultrasonic vibrations at the probe tip to be set to any desired amplitude. Selected output level is clearly displayed on the screen.

## □ Ten Hour Process Timer

Controls the processing time from 1 second to 10 hours.

# □ Elapsed Time Indicator

Monitors both the elapsed time and the duration of processing.

## □ Independent On/Off Pulser

Enables safe treatment of temperature-sensitive samples at high intensity, and provides mixing by repeatedly allowing the sample to settle back under the probe after each burst. Both on and off cycles are independently controllable from 1 second to 59 seconds.

#### User Friendly

Menu driven fill-in-the-blank prompts provide intuitive guidance through all functions.

## ☐ Smallest Footprint In Its Class

Ultra-compact design eases emplacement and optimizes bench space. Only  $7\frac{1}{2}$ " x  $13\frac{1}{2}$ " (190 x 340 mm).

<sup>\*</sup>For larger volumes use continuous flow cell Part No. 630-0495 or VCX 1500. Laboratory stand and converter clamp are not included.



## **SPECIFICATIONS**

POWER SUPPLY Net power output: VC 505 - 500 Watts. VC 750 - 750 Watts. Frequency: 20 kHz

Remote actuation compatible.

Dimensions: (H x W x D) 9¼" x 7½" x 13½" (235 x 190 x 340 mm)

Weight: 15 lbs. (6.8 kg).

SEALED CONVERTER Model CV 33. Piezoelectric lead zirconate titanate crystals (PZT)

Diameter: 2½" (63.5 mm) Length: 7½" (183 mm) Weight: 2 lbs. (900 g) Cable length: 6' (1.8 m)

STANDARD PROBE Tip diameter: ½" (13 mm) with threaded end and replaceable tip Part No. 630-0220

or solid probe with non-replaceable tip Part No. 630-0219. Please specify.\*

Processing capability: 10 ml to 250 ml.\*\*

Length: 5¾" (136 mm) Weight: ¾ lb (340 g) Titanium alloy Ti-6Al-4V

ELECTRICAL REQUIREMENTS Unless otherwise requested, units are shipped wired for 117 volts, 50/60 Hz.

For export, please specify desired voltage option.

#### ORDERING INFORMATION

Unless otherwise requested, shipped complete and ready for operation with a ½" (13 mm) probe with replaceable tip,\* tool kit and instruction manual

## **CAUTION**

All probes, including those with replaceable tips, are tuned to resonate at 20 kHz. If the replaceable tip is removed or isolated from the rest of the probe, that element will no longer resonate at 20 kHz and the power supply will go into an overload condition and shut down or fail. Organic solvents (e.g. methylene chloride) and low surface tension liquids will penetrate the interface between the probe and the replaceable tip, thus carrying the particulates into the threaded section and isolating the tip from the probe. When processing samples containing organic solvents or low surface tension liquids, ALWAYS use a solid probe or as an alternate a full wave 10" (254 mm) probe or an extender. NEVER use a probe with a replaceable tip.



<sup>\*</sup>Do not use a probe with replaceable tip when processing samples containing organic solvents or low surface tension liquids. See caution below. Use solid probe Part No. 630-0219 instead. Unless otherwise requested, the probe supplied will have a replaceable tip.

<sup>\*\*</sup>For other volumes please refer to probe and microtip listings. A different probe can be substituted for the standard probe.