500 and 750 Watt Ultrasonic Processors – VCX Series – 250 microliters to 1 liter\*





VCX 500 - VCX 750

# □ Exclusive Energy Setpoint

The energy setpoint continuously monitors the amount of energy in Joules (watts x seconds), that is being delivered to the probe, and terminates the ultrasonics when the desired amount of energy has been dispensed.

## □ 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.

## □ Integrated Temperature Controller

Precludes harmful overheating of the sample and guarantees process integrity by terminating the ultrasonics when the sample temperature reaches a predetermined limit. Allows process control and monitoring from 1°C to 100°C.

#### □ Consistent Reproducibility

Time-saving user-programmed presets store up to ten procedures to facilitate protocol duplication, automate repetitive tasks, and eliminate technician-to-technician method variability.

# □ Microprocessor Based - Programmable

Digital accuracy and repeatability guarantee 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 instant 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 7½" x 13½" (190 x 340 mm).

\* For larger volumes use medium volume continuous flow cell Part No. 630-0651 or VCX 1500. Laboratory stand, converter clamp and temperature probe are not included.



#### **SPECIFICATIONS**

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

Remote actuation compatible

Dimensions (H x W x D) 91/4" x 71/2" x 131/2" (235 x 190 x 340 mm)

Weight: 15 lbs. (6.8 kg)

SEALED CONVERTER\* Part No. CV 334. Piezoelectric lead zirconate titanate crystals (PZT)

Diameter: 2½" (63.5 mm) Length: 7½" (183 mm) Weight: 2 lbs. (900 g)

CONVERTER CABLE Cable length: 6' (1.8 m). Part No. 201-0300

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

TEMPERATURE PROBE

(Optional)

Allows sample temperature to be monitored up to 100°C.

Stainless steel.

Part No. 830-00060

TOOL KIT Supplied with one open end wrench Part No. 888-00026, and one each of spanner

wrenches Part No. 888-00041 (blue) for the converter and 888-00042 (red) for the

probe.

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.

#### **OPTIONAL ACCESSORIES**

For optional accessories, please refer to catalog.



<sup>\*</sup> The converter incorporates two plugs which can be removed and replaced with barb fittings, to enable air cooling when the converter is operated at high amplitude for prolonged durations.

<sup>\*\*</sup> Do not use a probe with replaceable tip when processing samples containing organic solvents or low surface tension liquids. See caution in the catalog. 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 in the catalog. A different probe can be substituted for the ½" (13 mm) probe.