

ULTRASONIC PROCESSORS FOR SMALL AND MEDIUM VOLUME APPLICATIONS

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

Real time display . . .



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 memory stores 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 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 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 continuous flow cell Part No. 630-0495 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) 9¼" x 7½" x 13½" (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: 7¼" (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 wrench Part No. 888-00026, and two spanner wrenches Part No. 888-00027
ELECTRICAL REQUIREMENTS	Unless otherwise requested, units are shipped wired for 117 volts, 50/60 Hz. For export, please specify desired voltage option.

ORDERING INFORMATION

Model No.

500 Watt ultrasonic processor VCX 500

750 Watt ultrasonic processor VCX 750

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 pages 11 through 16.

- * 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.
- ** Do not use a probe with replaceable tip when processing samples containing organic solvents or low surface tension liquids. See caution on page 8. Use solid probe Part No. 630-0219 instead. Unless otherwise requested, the probe supplied will have a replaceable tip.
- *** For other volumes please refer to probe and microtip listings on pages 11 through 13. A different probe can be substituted for the ½" (13 mm) probe.