



 Cole-Parmer®

ULTRASONIC PROCESSORS

ULTRASONIC PROCESSING  
FOR ALL YOUR SAMPLE  
VOLUME REQUIREMENTS



# Cole-Parmer Ultrasonic Processors

## MICROPROCESSOR-BASED PROGRAMMING WITH DIGITAL ACCURACY AND REPEATABILITY ENSURES ADHERENCE TO THE MOST EXACTING PROTOCOL

- Automatic tuning and frequency control eliminate the need for constant adjustment of the power supply
- Independent on/off pulser ensures thorough mixing and safe treatment of temperature-sensitive samples at high intensity; controls on/off cycles from 1 to 59 seconds
- Real-time display provides a window on the process—no more assumptions or approximations!
- All parameters are continuously displayed on the screen, providing operating mode confirmation without process interruption
- User-friendly menu-driven prompts provide intuitive guidance through all functions

### APPLICATIONS

- Sample preparation
- Cell lysing
- Disaggregation
- Homogenisation
- Particle size reduction
- Soil testing
- Acceleration of chemical reactions

## 130-WATT ULTRASONIC PROCESSORS

- Ideal for low-volume applications—from 150  $\mu$ L to 150 mL
- Built-in probe rests help keep everything close at hand
- Models 04714-52 and -53 feature a pulse button conveniently placed right on the handpiece
- Models 04714-50 and -51 feature a 10-hour timer and independent on/off pulser

Pulser button on models 04714-52 and -53 offers convenient pulsing control and variability



# Cole-Parmer Ultrasonic Processors

## 500- AND 750-WATT ULTRASONIC PROCESSORS

- Designed with the smallest footprint in their class, these compact units fit on any laboratory's existing bench space
- Process batch samples as small as 250  $\mu\text{L}$  or as large as 19 L/hr (using the optional continuous flow cell)
- Timer controls processing from 1 second up to 10 hours and monitors both the elapsed time and duration of processing



Easy-to-read display screen allows you to continuously monitor your process



## 500- AND 750-WATT ULTRASONIC PROCESSORS WITH TEMPERATURE CONTROLLER AND MEMORY

- Offer the same great features as above, plus...
- Integrated temperature controller prevents harmful sample overheating by terminating the ultrasonics when the sample temperature reaches a predetermined limit (set from 1 to 100°C); order temperature probe separately
- Time-saving memory stores up to ten procedures to facilitate protocol duplication, automate repetitive tasks, and eliminate user-to-user method variability for consistent reproducibility





**FREE TECHNICAL  
APPLICATIONS ASSISTANCE!**

## PERFORMANCE SPECIFICATIONS

- Variable power output control allows the ultrasonic vibrations at the probe tip to be set to any desired amplitude with on-screen display of output level.
- Timer controls the processing time from 1 second to 10 hours.



Catalog number	Description	Sample volume	Dimensions (W x H x D)	Power (50/60 Hz)
ML-04714-52	130-watt processor	150 µL to 150 mL	9¾" x 3½" x 12½" (248 x 89 x 318 mm)	115 VAC
ML-04714-53				220 VAC
ML-04714-50	130-watt processor with timer and pulser button			115 VAC
ML-04714-51				220 VAC
ML-04711-70	500-watt processor with timer	250 µL to 19 L/hr <sup>†</sup>	7½" x 8½" x 13½" (191 x 216 x 343 mm)	115 VAC
ML-04711-75				230 VAC
ML-04711-30	500-watt processor with timer and temperature controller			115 VAC
ML-04711-35				230 VAC
ML-04711-60	750-watt processor with timer	250 µL to 19 L/hr <sup>†</sup>	7½" x 8½" x 13½" (191 x 216 x 343 mm)	115 VAC
ML-04711-65				230 VAC
ML-04711-40	750-watt processor with timer and temperature controller			115 VAC
ML-04711-45				230 VAC

<sup>†</sup>With continuous flow cell 04710-91 (order separately below).

### What's included:

probe with tip, converter, tool kit, and 6-ft power cord.

### Accessories

**ML-04711-50 Stainless steel temperature probe** for models 04711-30, -35, -40, -45. CSA-approved.

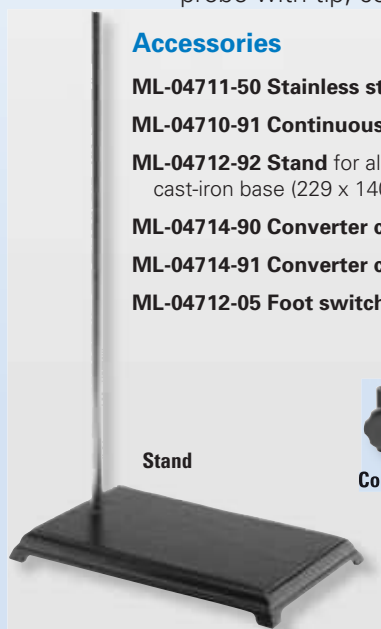
**ML-04710-91 Continuous flow cell** for 500- and 750-watt models; provides flow rates up to 19 L/hr.

**ML-04712-92 Stand** for all models; 24"H x ½" dia (610 x 13 mm) stainless steel rod and 9"L x 5½"W (229 x 140 mm) cast-iron base (229 x 140 mm).

**ML-04714-90 Converter clamp** for 130-watt models. Secures converter onto a ½" (13 mm) dia rod.

**ML-04714-91 Converter clamp** for 500- and 750-watt models. Secures converter onto a ½" (13 mm) dia rod.

**ML-04712-05 Foot switch** for all models. Provides hands-free operation; with 6-ft (1.8-m) cable. CE-marked.



Stand



Converter clamp



Foot switch



Continuous flow cell