LAPMASTER® WOLTERS

LAPMASTER ULTRASONIC CLEANING AND SPRAY RINSING SYSTEMS

LAPMASTER CLEANING SYSTEMS

I. Equipment
   a. Bench-Top Systems
      i. Lighter Duty
      ii. Mid-Heavy Duty
      iii. Multi-Tank
   b. Floor-Standing Ultrasonic Systems w/Agitation, Series AGI-LM
   c. Portable Floor-Standing Systems
   d. Multi-Tank Systems
   e. Multi-Tank Systems with Automated Parts Handling
   f. Custom Designed Systems

II. Accessories
   a. Filtration
   b. Parts Handling (Baskets)
   c. Spray-Rinse
   d. Automation Retro-Fit

III. Cleaning Agents
   a. Water-Soluble Concentrates Focused on Materials and Applications

Bench-Top Ultrasonic with Filtration System /Outer Amp

Floor Standing System with Cover and Filtration

Integrated Cartridge Filtration System

BENCH-TOP SYSTEMS

AFFORDABLE, LIGHTER-DUTY CLEANING SYSTEMS WITH HIGH-END FEATURES!

- **5 Models Available**
- **Corrosion and Chemical Resistant Plastic External Housings**
- **Stainless Steel Tanks**
- **110-230V Single Phase Electrical**
- **Many Optional Accessory Items**

SYSTEM SPECIFICATIONS

		MODEL 1210	MODEL 2210	MODEL 3210	MODEL 5210	MODEL 8210
		Tank Size 5½" × 6" × 4" (139.7 mm × 152.4 mm × 101.6 mm) **Overall Size** 11.6" × 10.0" × 12.0" **Tank Capacity** ½ gal. (1.91 L) **Weight** 7 lbs. **Frequency** 47 kHz	**Tank Size** 9½" × 5½" × 4" (241.3 mm × 139.7 mm × 101.6 mm) **Overall Size** 11.6" × 13.3" × 12.0" **Tank Capacity** ¾ gal. (2.81 L) **Weight** 9 lbs. **Frequency** 47 kHz	**Tank Size** 11½" × 6" × 6" (292.1 mm × 152.4 mm × 152.4 mm) **Overall Size** 14.6" × 15.7" × 12.5" **Tank Capacity** 1½ gal. (5.71 L) **Weight** 11 lbs. **Frequency** 47 kHz	**Tank Size** 11½" × 9½" × 6" (292.1 mm × 241.3 mm × 152.4 mm) **Overall Size** 14.6" × 15.7" × 15.8" **Tank Capacity** 2½ gal. (9.51 L) **Weight** 13 lbs. **Frequency** 47 kHz	**Tank Size** 19½" × 11" × 6" (495.3 mm × 279.4 mm × 152.4 mm) **Overall Size** 14.8" × 23.6" × 18.4" **Tank Capacity** 5½ gal. (20.81 L) **Weight** 26 lbs. **Frequency** 40 kHz
Mechanical Timer	**115 V**	0.5115V-1 (80 Watt)	0.75115V-1 (125 Watt)	1.5115V-1 (130 Watt)	2.5115V-1 (185 Watt)	5.5115V-1 (320 Watt)
	220/240 V	0.5220V-1	0.75220V-1	1.5220V-1	2.5220V-1	5.5220V-1
Mechanical Timer Plus Heat	**115 V**	0.5115V-2 (143 Watt)	0.75115V-2 (234 Watt)	1.5115V-2 (335 Watt)	2.5115V-2 (469 Watt)	5.5115V-2 (881 Watt)
	220/240 V	0.5220V-2	0.75220V-2	1.5220V-2	2.5220V-2	5.5220V-2
Digital Control Plus Heat, Degas and Timer	**115 V**	0.5115V-3 (143 Watt)	0.75115V-3 (234 Watt)	1.5115V-3 (335 Watt)	2.5115V-3 (469 Watt)	5.5115V-3 (881 Watt)
	220/240 V	0.5220V-3	0.75220V-3	1.5220V-3	2.5220V-3	5.5220V-3

BENCH-TOP SYSTEMS

MEDIUM-HEAVY DUTY CLEANING SYSTEMS PROVIDE LONG SERVICE LIFE AND REPEATABLE RESULTS IN PRODUCTION!

MODEL 1055   MODEL 1410   MODEL 1610

MODEL 1910   MODEL 2013 & PARTS BASKET

- 5 Models, 1-Gallon to 13-Gallon Capacity
- Rugged 316 SS Construction
- Available in 110V or 220V
- Thermostat is Standard on Most Models
- Individual Ultrasonic & Heat Switching
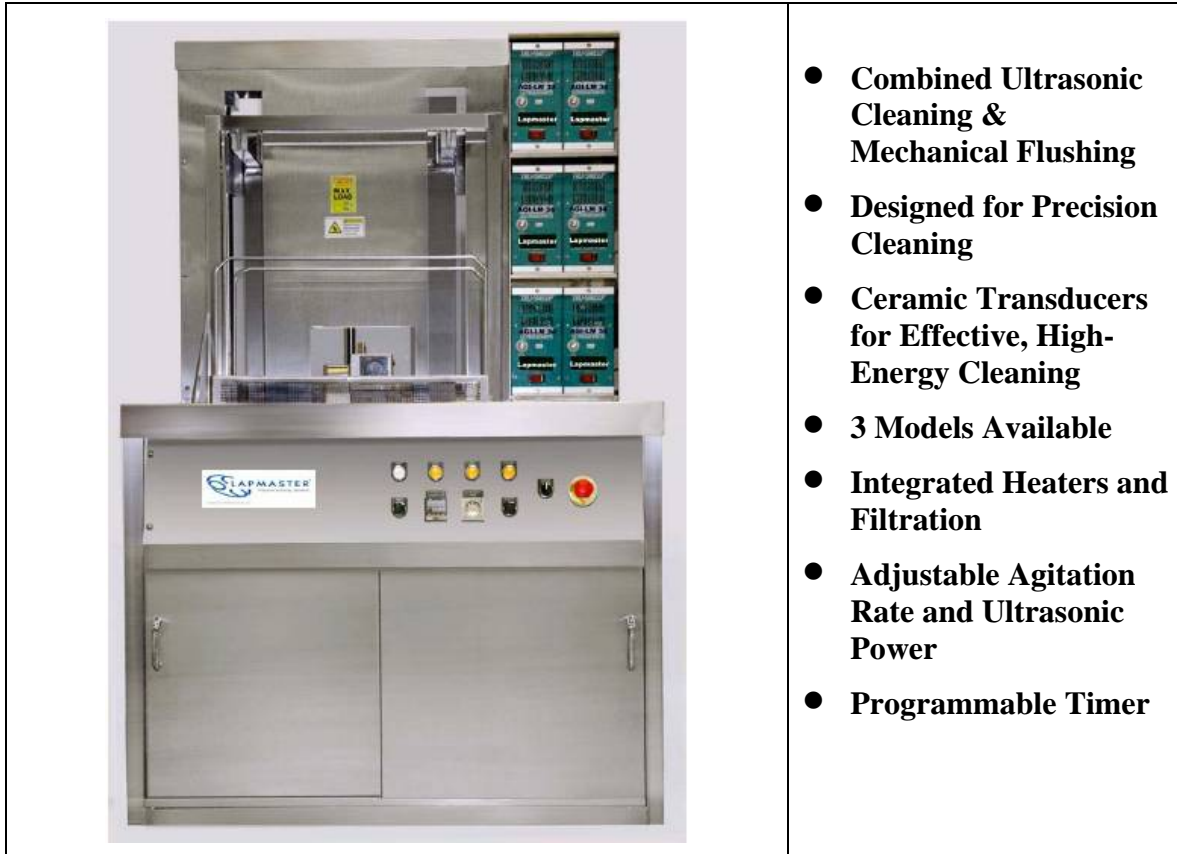- Companion Cross Spray Rinse Tanks

SYSTEM SPECIFICATIONS

	Model 1055	Model 1410	Model 1610	Model 1910	Model 2013
Features					
Inside Dimensions	5" x 10" x 5" 12 x 20 x 12 cm	12" x 8" x 10" 30 x 20 x 25 cm	11" x 14" x 11" 28 x 36 x 28 cm	8" x 22" 12" 20 x 56 x 30 cm	14" x 20" x 14" 36 x 51 x 36 cm
Working Depth	5" (13 cm)	10" (25 cm)	11" (28 cm)	12" (30 cm)	14" (36 cm)
Outside Dimensions	14" x 8" x 9" 35 x 20 x 35 cm	16" x 18" x 16" 41 x 46 x 41 cm	18" x 21" x 17" 46 x 53 x 43 cm	16" x 18" x 16" 41 x 46 x 41 cm	24" x 24" x 21" 61 x 61 x 53 cm
Liquid Capacity	1 Gallon 3.8 liters	4 Gallons 16 liters	6 Gallons 22.7 liters	9 Gallons 34 liters	13 Gallons 50 liters
Amount of Ultrasonic Power	100 Watts	250 Watts	500 Watts	500 Watts	750 Watts
Amount of Heat	200 Watts	500 Watts	500 Watts	500 Watts	1,000 Watts
All Stainless Steel Construction	14 gage 316SS	14 gage 316SS	14 gage 316SS	14 gage 316SS	14 gage 316SS
Bottom-Mounted "VibraBar" Transducers	Standard	Standard	Standard	Standard	Standard
Choice of 115V or 220V System	Either	Either	Either	Either	Either
Adjustable Themostat with Pilot Lamp	Optional	Standard	Standard	Standard	Standard

FLOOR-STANDING SYSTEMS

SERIES AGI-LM 34 FEATURES COMBINED ULTRASONIC-AGITATION ACTION!

- Combined Ultrasonic Cleaning & Mechanical Flushing
- Designed for Precision Cleaning
- Ceramic Transducers for Effective, High-Energy Cleaning
- 3 Models Available
- Integrated Heaters and Filtration
- Adjustable Agitation Rate and Ultrasonic Power
- Programmable Timer

SYSTEM SPECIFICATIONS

	LM-3122	LM-3527	LM-4436
Tank Capacity (Gallons)	74	98	140
Ultrasonic (40 kHz) Power	3,000 Watts	4,000 Watts	5,000 Watts
Maximum Load Capability	125 lbs.	150 lbs.	500 lbs.
Heat Generation	6,000 Watts	9,000 Watts	12,000 Watts
Electrical Power	240V/3P/60 Hz	240V/3P/60 Hz	240V/3P/60 Hz
Required Compressed Air	80 PSI	80 PSI	80 PSI
Tank Dimensions	31" x 22"	35" x 27"	44" x 36"
Working Liquid Depth	20"	20"	20"
Total Liquid Depth	24"	24"	25"
Overall Dimensions LR x FB	44" x 45"	49" x 50"	59" x 60"
Counter Height	35.5"	35.5"	35.5"
Re-circulation Filtration	Standard	Standard	Standard
Low Liquid Level Safety Monitor	Standard	Standard	Standard
Programmable Timer	Standard	Standard	Standard
Adjustable Agitation	Standard	Standard	Standard
Easy Access Lift-Off Panels	Standard	Standard	Standard
Stainless Steel Basket	Standard	Standard	Standard
Non-Corrosive SS Construction	Standard	Standard	Standard
Internal SS Plumbing	Standard	Standard	Standard
Master Control Panel	Standard	Standard	Standard
Alternative Voltages	Available	Available	Available
25 kHz Ultrasonic Power	Available	Available	Available

FLOOR-STANDING SYSTEMS
PORTABLE/FIXED/CUSTOM SYSTEMS

- Can be configured as portable or fixed system
- 35-gallon and 90-gallon capacity tanks available
- Available in 230V or 460V
- Integrated Ultrasonic Generator
- Thermostat Heat Control
- Large parts handling baskets

- Smaller tank size "application-focused" floor-standing systems featuring single or multiple tanks
- Typically 19-30 gallon capacity tanks
- Primary rinsing station (spray or mechanical agitation), secondary ultrasonic station and perhaps a final rinse or drying station

Wash and Rinse Console

- Multi-station (manual parts handling) cleaning system
- Typically 3-5 tanks/stations including Spray Rinse, Ultrasonic 1, Ultrasonic 2, Immersion Rinse and Final Drying Station
- Integrated ultrasonics, central operator control panel

- Multi-station (automated parts handling) cleaning system
- Can often be retro-fitted to original "manual handling" systems
- Programmable full automation or limited semi-auto operations

LAPMASTER CLEANING AGENTS

AQUEOUS-BASE NON-HAZARDOUS
*"FOCUSED" CONCENTRATES ***

- **Optical/Glass Cleaner** (OC): Alkaline, non-foaming, hot/cold temperatures, removes fingerprints, pitch and blocking wax. 7-10% by volume concentration.
- **Jewelry Cleaner** (JC): Biodegradable phosphate-free alkaline cleaner for precious metals. Concentration of 10-12% by volume, 100-140° F temperature for best results.
- **General Purpose Cleaner** (GP): Biodegradable, caustic and phosphate free alkaline cleaner for general purpose and normal maintenance cleaning. Concentration of 10-12% by volume, 100-180° F for best results.
- **Industrial Strength Cleaner** (IS): Biodegradable, caustic and phosphate free alkaline cleaner. Non-ionic surfactants, detergents and wetting agents remove heavy oils, grease, compound and other difficult material. 8-12% concentration by volume, 140-180° F for best results.

- **Metal Cleaner 1 (MC-1):** Biodegradable, caustic-free alkaline cleaner for heavy industrial use on a variety of ferrous and non-ferrous metals, including aluminum. 7-10% concentration by volume, 130-180° F for best results.
- **Metal Cleaner 2 (MC-2):** Similar to MC-1, but not recommended for aluminum cleaning.
- **Metal Cleaner 3 (MC-3):** Aluminum cleaning agent
- **Electronics Component Cleaner** (EC/LM0725-8): Biodegradable phosphate and caustic-free cleaning agent with no environmental risks. Extremely low ionic content, low volatile organic compound content, near neutral pH, rinses thoroughly with DI water. 1-2% concentration, ambient temperature-150° F for best results. Great for HDD media cleaning, MEMS/NEMS wafer surfaces.
- **Semiconductor Cleaner** (SC/LM0725-3): Similar to the above cleaner, with a slightly higher pH level. More "focused" on removing Nickel content, especially from a water-glycol mix.

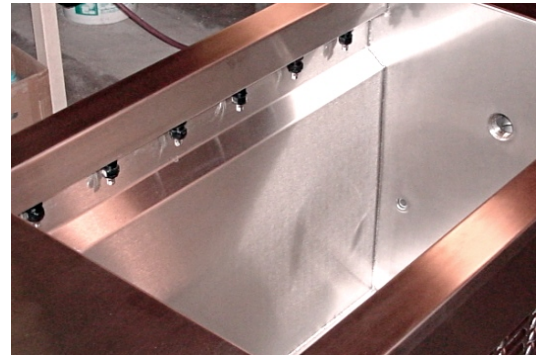*   Available in 1-Gallon, 5-Gallon and 55-Gallon Containers

LAPMASTER CLEANING SYSTEMS

Accessories & Options

- **Pump and filter for Ultrasonic Cleaners and Spray Rinse Units**
- **Cartridge Filter Elements**
- **Sensitivity up to 1 micron Particle Size. Various Micron Sized Cartridges Available.**
- **Lightweight & Portable, 115V Service, Low Cost of Ownership**

- **Spray-Bar Rinse Systems**
- **Companion Tank Sizes to Ultrasonic Units**
- **Available in fixed direction or flexible direction version**
- **Direct rinse or immersion**
- **Filtration Interface**

- **Parts Loading & Handling Baskets (Stainless)**
- **System Covers (Poly & Stainless)**
- **Ultrasonic Intensity Control, Digital Temperature Display and Cycle Timer Options**

LAPMASTER® WOLTERS