Registration

#### Web

# UL Ultrasonic Cleaners



08848-10





08855-10

Long bed is perfect for cleaning glass pipettes.



08894-60

## Cole-Parmer\* Low-Cost Ultrasonic Cleaner with Timer

#### Economical compact cleaner is perfect for cleaning small components

This 15-oz ultrasonic cleaner measures only 8%"L x 4%"W—ideal for small benchtop areas. The stainless steel tank is sealed inside an impact resistant plastic housing to prevent leaks. The cleaner features a five-minute timer that shuts off automatically. Operates at a cleaning frequency of 40 kHz.

What's included: a cover, parts basket, and two sample bottles of cleaning solution.

#### **Specifications & Ordering Info**

Cat. no.	Power	Price
KH-08848-10	117 VAC, 50/60 Hz, 19 W	
KH-08848-15	220 VAC, 50/60 Hz, 19 W	

## Cole-Parmer One-Pint Compact Cleaner

#### Compact—takes up only 51/4" x 51/4" of benchtop space

Our 20-watt, one-pint cleaner has a frequency generator and lead zirconate-titanate transducer that produce an effective operating frequency of 55 kHz. Generator features an RFI filter.

Operation is simple—fill tank three-quarters full with cleaning solution and submerge parts using the supplied dipping basket. Turn cleaner on and items are thoroughly clean in minutes.

The 304 stainless steel tank features a smooth, rounded interior for easy cleaning. Tank interior measures  $3^{"}D \times 3^{1/2"}$  dia. The high-impact,

Cycolac® ABS plastic outer shell resists dents and dirt.

What's included: ABS plastic cover, dipping basket, and 5½-ft cord with plug (6-ft cord and plug on 220 VAC model).

Specificatio	ons & Ordering Info	UL) SA 117 VAC model only
Cat. no.	Power	Price
<u>KH-08849-00</u>	117 VAC, 60 Hz, 0.5 A	
KH_088/10_02	220 V/AC 50 Hz 0 5 A	

(YL) (SP)

## **Cole-Parmer**<sup>•</sup> Long-Bed Ultrasonic Cleaners

#### Easily accommodates pipettes and other oddly shaped items

Our long-bed cleaners feature a large, 304 stainless steel tank—ideal for cleaning long items such as pipettes. Units operate at a cleaning frequency of 40 kHz. Model 08855-10 comes equipped with a heater and maintains solution temperature at  $60^{\circ}C$  ( $140^{\circ}F$ ),  $\pm 10^{\circ}C$  ( $12.2^{\circ}F$ ).

What's included: 304 stainless steel cover and 6-ft power cord with plug (the 220 VAC unit has no plug).

#### Specifications and Ordering Information

Water outlet: 3/8" NPT(M) bottom-mounted drain

<b>0</b> 1	Tank dimension	Overall dimension		With		er	With heater		
Capacity	(L x W x H)	(L x W x H)	Power	Catalog no.	Amps	Price	Catalog no.	Amps	Price
2¾ gallons	9¾" x 5¾" x 6"	20½" x 6½" x 10½"	115 VAC, 50/60 Hz	<u>KH-08855-00</u>	3		<u>KH-08855-10</u>	3	
2¾ gallons	9¾" x 5¾" x 6"	20½" x 6½" x 10½"	220 VAC, 50/60 Hz	KH-08855-02	3		—		

KH-08855-40 Replacement tank cover, 304 SS

KH-08855-41 Perforated tray, 304 SS. Use to suspend items above the tank floor for efficient cleaning

## **Head Ultrasonic Cavitation Meter**

#### Instantly measures ultrasonic energy in cleaning tanks

- Calculate best workloads
- Detect loss of ultrasonic energy
- Compare energy level over the life of the tank

Cavitation is the expansion and rapid implosion of microscopic gas or vapor bubbles produced when high-intensity ultrasonic waves are directed into a liquid. Use the meter to determine cavitation intensity in the ultrasonic cleaning tank, to check the effect of work baskets, fixtures, and workloads, and to compare energy levels from tank to tank.

What's included: 16" stainless steel probe, and hanging basket.

#### **Specifications & Ordering Information**

Probe: 16" stainless steel Meter: 3½" analog with glass window Cavitation range For aqueous: 0 to 1000 Cavins For solvents: 0 to 100 Cavins Temperature range

Probe: -400°F to 1000°F Meter: -40°F to 149°F



1890

Web

## Ultrasonic Cleaners

## **Cole-Parmer** Ultrasonic Cleaners

#### High-frequency 42 kHz sound waves provide greater cleaning power and increased reliability

 Sweep frequency provides uniform cleaning by creating overlapping sound waves

These cleaners transform low-frequency AC current into 42 kHz high-frequency sound waves via an electroacoustic transducer. The transducer creates sinusoidal waves, which in turn cause cavitationthe formation and violent collapse of minute vacuum bubbles in the solution. These implosions thoroughly scrub every surface with which the solution makes contact, yet are not harsh on delicate items. Cleaners also feature "sweep" frequency that provides uniform cleaning throughout the tank by creating overlapping ultrasonic waves and eliminating inconsistent cleaning due to areas of intense ultrasonic activity.

The leakproof housing features super-sealing double O-rings and recessed ventilation. The 304 stainless steel (SS) tank is surrounded by a durable, impact-resistant polypropylene housing. Sealed membrane control panel is impervious to splashes and spills.

Choose from five sizes of cleaners—all are available with mechanical timer; with heater and mechanical timer; or with heater, digital timer, temperature monitor, and degas feature.

What's included: a polypropylene lid (a SS lid on 08894-series), integral handles, nonskid feet, and a 7½-ft power cord (115 VAC models include plug; 230 VAC models do not include plug). Order cleaning solutions on pages 259-262.

#### **Ultrasonic Cleaners with Mechanical Timer**

Our most economical and easy-to-operate cleaners-set the time with just one guick twist of the dial. Analog mechanical timer enables controlled cleaning cycles up to 60 minutes.



### **Ultrasonic Cleaners with Heater and Mechanical Timer**

08891-21

For enhanced cleaning capabilities, order a cleaner with heater and mechanical timer. Maximum heater temperature is 156°F (69°C). Built-in temperature sensor prevents overheating, automatically shuts down heating and ultrasonics when solution temperature exceeds 158°F (70°C). Set cleaning cycle up to 60 minutes.





cover shown with these cleaners on page 1893.

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08890-11

#### Ultrasonic Cleaners with Heater. **Digital Timer, Temperature Monitor,** and Degas Feature

For critical cleaning applications, choose a cleaner with heater, digital timer, temperature monitor, and degas feature. The degas feature eliminates air bubbles from the solution for more efficient cleaning. Built-in temperature sensor prevents overheating, automatically shuts down heating and ultrasonics when solution exceeds 158°F (70°C). Heater is adjustable from 68 to 156°F (20 to 69°C); set timer cleaning cycle up to 99 minutes.



#### Specifications and Ordering Information

Capacity		Tank dimensions Power (L x W x H) (50/60 Hz)		With mechanical timer		With heater and mechanical timer			With heater, digital timer, temperature monitor, and degas feature		
		(30/00 HZ)	Catalog number	Amps	Price	Catalog number	Amps	Price	Catalog number	Amps	Price
½ gallon*	5½" x 6" x 4"	115 VAC	KH-08890-01	0.8		KH-08890-11	1.3		KH-08890-21	1.4	
72 yalloll	51/2 X 6 X 4	230 VAC	KH-08890-06	0.4		KH-08890-16	0.6		KH-08890-26	0.7	
¾ gallon*		115 VAC	KH-08891-01	1.1		KH-08891-11	2.0		KH-08891-21	2.0	
94 yalloll		230 VAC	KH-08891-06	0.6		KH-08891-16	1.0		KH-08891-26	1.1	
41/ II †		115 VAC	KH-08892-01	1.1		KH-08892-11	2.8		KH-08892-21	2.9	
1½ gallons <sup>†</sup>		230 VAC	KH-08892-06	0.6		KH-08892-16	1.5		KH-08892-26	1.5	
<b>a</b> 1/ II t	111/"01/"0"	115 VAC	KH-08893-01	1.5		KH-08893-11	4.2		KH-08893-21	4.2	
2½ gallons <sup>†</sup>	11½" x 9½" x 6"	230 VAC	KH-08893-06	0.8		KH-08893-16	2.0		KH-08893-26	2.1	
<b>F1</b> ( <b>II t</b>	101/ 11	115 VAC	KH-08894-01	2.7		KH-08894-11	8.0		KH-08894-21	8.0	-
5½ gallons⁺	19½" x 11" x 6"	230 VAC	KH-08894-06	1.4		KH-08894-16	4.0		KH-08894-26	4.0	

\*The ½- and ¾-gallon cleaners have a pour spout.

'The 11/2-, 21/2-, and 51/2- gallon cleaners have a quick-disconnect drain.

Cole-Parmer\* • U.S. 800-323-4340 toll-free, 847-549-7600 (outside the U.S.), www.coleparmer.com Canada 800-363-5900 • India 91-22-6716-2222 • UK 0500-345-300

1891

# **UL** Ultrasonic Cleaners

# **Cole-Parmer** Stainless Steel Ultrasonic Cleaners

### Aggressive cleaning ability in a variety of sizes

- Sturdy, noncorrosive units handle all types of cleaning tasks
- Sweep frequency ensures uniform cleaning activity

Operating at 40 kHz, these ultrasonic cleaners provide aggressive cleaning power. Easy-toclean, corrosion-resistant 304 stainless steel tanks have no corner welds or other dirt-catching surfaces. The units are enclosed in durable, powder-coated steel skirts.

Choose the size and type of cleaner that suits your needs. Each size is available in three configurations—with mechanical timer and hold function; heater and mechanical timer with hold function; or heater, digital timer, temperature monitor, and degas feature.

**What's included:** stainless steel lid, nonskid feet, and  $7\frac{1}{2}$ -ft power cord. The 1-,  $1\frac{1}{2}$ -,  $2\frac{1}{2}$ -,  $3\frac{1}{2}$ -, and  $5\frac{1}{2}$ -gallon cleaners have a bottom-mounted drain and include tank drain kits. Order cleaning solutions from our new "Cleaning Solutions" section on pages 259–262.

### More info

Order insert trays, beaker positioning covers, and beakers on page 1893.





08895-00

Cole-Parme

# Ultrasonic Cleaners with Mechanical Timer

Analog timer allows for controlled cleaning cycles up to 60 minutes. Turn the dial counterclockwise to the hold position for continuous operation.



#### 08895-38

### Ultrasonic Cleaners with Heater and Mechanical Timer

Choose these cleaners for greater cleaning capability—ideal for heat cleaning any size parts. Maximum heater temperature is  $140^{\circ}$ F ( $60^{\circ}$ C). Set the cleaning cycle up to 60 minutes or use the hold function for continuous operation.

### Ultrasonic Cleaners with Heater, Digital Timer, Temperature Monitor, and Degas Feature

Use these ultrasonic cleaners for critical cleaning applications. The degas feature eliminates air bubbles from the solution for more efficient cleaning. Set degas function up to 99 minutes. Adjustable heater sets tank temperatures from 34 to 156°F (1 to 69°C). Cleaner monitors solution temperature from 50 to 167°F (10 to 75°C). Overtemperature protection prevents overheating; cleaner automatically shuts down when solution exceeds 167°F (75°C). Set timer cleaning cycle up to 99 minutes.



### **Specifications & Ordering Information**

Capacity	Tank dimensions (L x W x H)	Power (50/60 Hz)	Cleaners with mechanical timer		Cleaners with heater and mechanical heater			Cleaners with heater, digital timer, temperature monitor, and degas			
		(30/00 HZ)	Catalog number	Amps	Price	Catalog number	Amps	Price	Catalog number	Amps	Price
¾ gallon	6" x 5½" x 6"	115 VAC	KH-08895-00	0.8		KH-08895-02	1.3		KH-08895-04	1.4	
94 galloll	0 X 3/2 X 0	220 VAC	KH-08895-06	0.4		KH-08895-08	0.6		KH-08895-10	0.7	
1 gallons*	9½" x 5½" x 6"	115 VAC	KH-08895-12	1.1		KH-08895-14	2.0		KH-08895-16	2.0	
I gallons"		220 VAC	KH-08895-18	0.6		KH-08895-20	1.0		KH-08895-22	1.1	
11/ gallana*	11½" x 6" x 6"	115 VAC	KH-08895-24	1.3		KH-08895-26	2.8		KH-08895-28	2.9	
1½ gallons*		220 VAC	KH-08895-30	0.7		KH-08895-32	1.5		KH-08895-34	1.5	
01/	111/	115 VAC	KH-08895-36	1.5		KH-08895-38	4.2		KH-08895-40	4.2	
2½ gallons*	11½" x 9½" x 6"	220 VAC	KH-08895-42	0.8		KH-08895-44	2.0		KH-08895-46	2.1	
01/	111/ 01/ 0	115 VAC	KH-08895-48	1.5		KH-08895-50	4.2		KH-08895-52	4.2	
3½ gallons*	11½" x 9½" x 8"	220 VAC	KH-08895-54	0.8		KH-08895-56	2.0		KH-08895-58	2.1	
E1/	101/ 111/ 0	115 VAC	KH-08895-60	2.7		KH-08895-62	8.0		KH-08895-64	8.0	
5½gallons*	19½" x 11½" x 6"	220 VAC	KH-08895-66	1.4		KH-08895-68	4.0		KH-08895-70	4.0	

\*The 1-, 1½-, 2½-, 3½-, and 5½-gallon cleaners have a bottom-mounted drain.

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## Ultrasonic Cleaners

## Accessories for Ultrasonic Cleaners on Pages 1891 and 1892

#### Use these accessories to achieve optimal cleaning results

Ultrasonic activity is greatest about an inch from the bottom of the tank, so suspending your items provides the best cleaning possible and helps prevent damage to the transducers

Insert Trays are constructed of 304 stainless steel. Use the solid trays to support items that require indirect cleaning. Use perforated or mesh trays to support items in the tank for direct cleaning.

Beaker Positioning Covers are ideal for cleaning small objects or for indirect cleaning. Covers come with a beaker suspension ring. Order beakers separately on page 134-138.

### **Specifications & Ordering Information**



Compatible	Solid inse	rt trays	Perforated insert trays		Mesh ins	Mesh insert trays		Beaker positioning covers			
ultrasonic cleaners	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price	Cat. no.	Beakers held	Material	Price	
08890-series, 08895-00 to -10	<u>KH-08850-41</u>		<u>KH-08850-42</u>		<u>KH-08850-45</u>		<u>KH-08890-50</u>	One 600 mL	Polypropylene		
08891-series, 08895-12 to -22	<u>KH-08851-41</u>		<u>KH-08851-42</u>		<u>KH-08851-45</u>		<u>KH-08891-50</u>	Two 600 mL	Polypropylene		
08892-series, 08895-24 to -34	<u>KH-08852-41</u>		KH-08852-42		KH-08852-45		<u>KH-08892-50</u>	Three 250 mL	Polypropylene		
08893-series, 08895-36 to -58	<u>KH-08853-41</u>		KH-08853-42		_	_	<u>KH-08893-50</u>	Four 600 mL	Polypropylene		
08894-series, 08895-60 to -70	KH-08854-41		KH-08854-42		_	_	<u>KH-08894-50</u>	Six 600 mL	304 stainless steel		



08800-00 Use the ultrasonic cavitation probe to determine frequency and observe ultrasonic activity.

Lower probe into ultrasonic cleaning tank.

#### **Directly see** the cleaning effectiveness.



# **Ultrasonic Cavitation Probe**

#### Directly view ultrasonic activity and eliminate guesswork about cleaning effectiveness

Make sound waves visible! Use this cavitation probe to measure frequency in an operating ultrasonic system and evaluate actual cleaning conditions.

The probe is easy to use—lower the device into the ultrasonic cleaning tank and immediately measure the wavelength by observing the standing waves in the fluid. Since cleaning occurs only where the sound waves strike the object to be cleaned, you can directly see the cleaning effectiveness. Move the probe to any position to identify dead spots. The probe will also help you detect frequency shifts, determine sweep frequencies, reveal ultrasonic shadowing, display state of fluid degassing, and confirm ideal frequency for specific cleaning tasks. A carrying case is included. Recommended temperature range is 50 to 150°F.

### Specifications & Ordering Information

Catalog number Description		Dimensions	Price
KH-08800-00	Ultrasonic cavitation probe	24"L x 1" dia	

## **Compact Ultrasonic Test Sieve Cleaner**

Clean your 8" (200-mm) diameter sieves safely and effectively

Simply brush sieve before inserting it into the 11/2-gallon ultrasonic bathvibrations up to 50 kHz dislodge particles from sieve frame and screen within 5 to 15 minutes (includes builtin timer). Note: To avoid damage to tank, do not use cleaner with acids, chlorides, solvents, or other flammables. Use only with water or cleaning solution 08801-11 sold separately at right. Cleaner features a stainless steel tank and outer casing.

Specifications & Ordering Information								
Cat. no.	Tank dimension	Overall dimension	Power	Price				
EK-59987-10	51∕8"H x	101/%"H x	110 VAC, 60 Hz					
EK-59987-15	9" dia	10¼" dia	220 VAC, 50 Hz					

#### Accessories

Cat. no.	Description	Price
EK-59987-50	Lid, stainless steel	
EK-59987-52	Basket, stainless steel	
EK-08801-11	Cleaning solution, 1-qt bottle	

### **Ultrasonic Cleaners** Uı

# **Adjustable Waveform Ultrasonic Cleaners**

Registration

### Adjustable ultrasonics let you tailor each cleaning task!

These cleaners feature unique, patented circuitry that converts the conventional ultrasonic sinusoidal waveform to a square digital waveform. Because square digital waveforms produce an adjustable, reproducible cavitation response, you can select the length of peak cavitation that your application requires.

Cavitation in a solution occurs at the threshold frequencythe frequency at which a portion of the solution transforms into its vapor phase. Upon exceeding this threshold, countless minute vacuum bubbles form and then violently implode, causing a scrubbing action. The time spent above the threshold of cavitation determines the aggressiveness of the cleaning action.

The adjustable controllers allow you to vary both the cavitation and degassing periods. Longer periods of cavitation give you aggressive cleaning, whereas shorter cavitation periods give you a gentler cleaning action. Set a longer degassing period to clean items with complex shapes; set a shorter period for items with smooth, simple shapes. The controllers feature a membrane keypad that resists splashes. Set the integral timer for up to 20 minutes or leave it at "on" for continuous unattended operation.

Cleaners have an operating frequency in the 40 kHz range. The heater maintains temperature from 140 to 158°F (60 to 70°C); temperature is not adjustable. Tough, chemical- and impactresistant powder-coated aluminum houses a 304 stainless steel tank. An integral, gravity-fed drain system eliminates the need for fixed piping and tubing.

What's included: a 6-ft, three-wire cord with U.S. standard plug (the 230 VAC unit has no plug).



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**Conventional ultrasonic** sinusoidal waveform-fixed sound characteristics limit cleaning applications.



Square digital waveform adjusted for gentle cleaning-cleans complex, delicate parts without damage.

Web



aggressive cleaning—quickly removes tough soil from large, simple parts.

	/oltage	
Threshold of cavitation		
Time - Threshold of cavitation		



### **Specifications & Ordering Information**

Canaaitu	Tank dimensions	Overall dimensions		120 VAC models			230 VAC models	
Capacity	(L x W x H) (L x W	(L x W x H)	Cat. no.	Amps	Price	Cat. no.	Amps	Price
<sup>3</sup> ⁄4 gallon	9½" x 5½" x 4"	13" x 9" x 9"	KH-08857-02	1.3		KH-08857-07	0.9	
1½ gallons	115%" x 6" x 6"	15¼" x 9" x 11"	KH-08858-02	2.2		KH-08858-07	1.5	
2¾ gallons	115%" x 95⁄16" x 6"	15¼" x 13" x 11"	KH-08859-02	3.3		KH-08859-07	2.5	

#### **Cleaner Accessories**

Solid polypropylene tank covers reduce evaporation and eliminate splashing problems. Use beaker positioning covers to suspend standard 600-mL beakers in the tank. ABS plastic beaker suspension rings (sold separately below table) allow you to suspend 250- or

400-mL beakers within the standard beaker cover. Solid stainless steel pans hold items for indirect cleaning (placing solution and item in a second pan). Perforated stainless steel pans are ideal for direct cleaning and easy removal of items from the tank.

Cleaner	Polypropylene tank covers		PP beaker positioning covers		Solid stainle	ss steel pans	Perforated stainless steel pans	
capacity	Catalog number	Price	Catalog number	Price	Catalog number	Price	Catalog number	Price
¾ gallon	KH-08857-50		KH-08857-52		KH-08851-41		KH-08857-64	
1½ gallons	KH-08858-50		KH-08858-52		KH-08852-41		KH-08858-64	
2¾ gallons	KH-08859-50		KH-08859-52		—	—	KH-08859-64	

KH-08860-50 Beaker suspension ring, insert into beaker cover to suspend 250-mL beakers. Made of ABS plastic

KH-08860-51 Beaker suspension ring, insert into beaker cover to suspend 400-mL beakers. Made of ABS plastic

1894

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## Ultrasonic Cleaners

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## **High-Powered Ultrasonic Cleaner**

#### Compact design is ideal for saving benchtop space

Clean surfaces and cavities of hard-to-clean objects

This high-powered ultrasonic cleaner is perfect for removing grease, dust, and other contaminants from the surface and cavities of small objects. Use to clean cuvettes, lenses, glassware, stainless steel instruments, metals, and more. Operation is simple—place objects directly into the stainless steel tank or into the dipping basket (included), cover with the transparent lid and press "on".

The 90-watt transducer generates thousands of minute cleansing bubbles that vibrate at a cleaning frequency of 42 kHz. This ultrasonic cleaner will not scratch the surface or harm objects like many chemical or abrasive cleansers. Choose from five pre-programmed timing cycles (90, 180, 280, 380, and 480 seconds) that show the remaining countdown time on the large LED display. The cooling fan enables prolonged operation and prevents overheating.

What's included: one dipping basket and 5-ft power cord.

#### Specifications & Ordering Information

Catalog number	Capacity	Tank dimensions (L x W x H)	Overall dimensions (L x W x H)	Power	Price
KH-08848-50	1 quart	7" x 5½" x 2"	9" x 7" x 6¼"	120 VAC, 50/60 Hz	



08848-50

## **Ultrasonic Generator Systems**

#### Tanks mount flush with countertop to save space

These industrial ultrasonic systems are designed for continuous operation. Use a 25 kHz system for aggressive cleaning; use a 40 kHz system for cleaning delicate items.

Heliarc-welded, 316L stainless steel tank is compatible with mildly acidic, neutral, or alkaline aqueous cleaning solutions. The 5.2- and 10-gallon tanks have a  $\frac{3}{4}$ " NPT(M) drain connection; the 22gallon tanks have a 1" NPT(M) connection. All tanks have a  $\frac{1}{2}$ " NPT(M) fill port on the back of the unit. Piezoelectric transducer elements, mounted on the underside of the tank, are rated for continuous operation at temperatures to 220°F (104°C). Builtin, thermostat-controlled heater maintains solution temperature from ambient to 190°F (88°C).

Remote power supply features simple one-button operation. RFI filter complies with FCC standards. All systems come with a 6-ft power cord for hard-wiring. An 8-ft cord connects power supply and tank.

#### **Specifications & Ordering Information**

Capacity	Tank dimensions (L x W x H)	Outside dimensions (L x W x H)	VAC (50/60 Hz)	No. of transducers	Frequency output	Catalog number	Amps	Price
5.2 gallons	10" x 12" x 10"	10" x 14¼" x 15%"	120	12	25 kHz 40 kHz	KH-18000-00 KH-18000-10	8.4	
10 gallons	12" x 16" x 12"	12" x 18¼" x 175%"	220	18	25 kHz 40 kHz	KH-18000-25 KH-18000-35	9.2	
22 gallons	16" x 20" x 16"	16" x 22¼" x 21¾"	220	24	25 kHz 40 kHz	KH-18000-45 KH-18000-55	24	

#### Accessories

For model	Covers	5	Baskets				
numbers	Catalog number	Price	Catalog number	Dimensions (L x W x H)	Price		
18000-00, 18000-10	<u>KH-18000-60</u>		<u>KH-18000-71</u>	11" x 9" x 5" (9"H with handle)			
18000-25, 18000-35	<u>KH-18000-62</u>		<u>KH-18000-73</u>	15" x 11" x 5" (11"H with handle)			
18000-45, 18000-55	<u>KH-18000-64</u>		<u>KH-18000-75</u>	19" x 15" x 5" (15"H with handle)			



Tank can be mounted flush with countertop.



Power supply can be placed up to 8 feet from tank for added convenience.

18000-00

Seamless tank

is easy to clean.

### **Ultrasonic Cleaners** U

# Large-Capacity Stainless Steel Ultrasonic Cleaners

Registration

Web

SO9001:2000

#### Capacities up to 22 gallons accommodate your large or bulky items

Microprocessor-based controls ensure precise process management

These stainless steel cleaners easily handle a variety of industrial cleaning applications-from densely packed smaller parts to heavily soiled larger components. Choose a 25 kHz unit for aggressive cleaning; choose a 40 kHz unit for more gentle cleaning. Use the digital controls to set cleaning time from 1 to 99 minutes and temperature from ambient to 176°F (80°C).

What's included: stainless steel cover with handle, stainless steel wire mesh parts basket, drain valve, and 8-ft cord with plug.

#### **Specifications & Ordering Information**

Catalog number	Capacity	Tank dimensions (L x W x H)	Overall dimensions (L x W x H)	Power (50/60 Hz)	No. of transducers	Frequency output	Shpg wt Ib (kg)	Price
<u>KH-08995-00</u> KH-08995-02	10			208 VAC, 9.2 A		25 40		
KH-08995-04 KH-08995-06	gallons	12" x 16" x 13"	20¾" x 19" x 16¾"	230 VAC, 9.2 A	12	25 40	80 (36)	
KH-08995-08 KH-08995-09	21	101 001 101	0.42/# 00# 002/#	208 VAC, 14 A	10	25 40	100 (54)	
KH-08995-12 KH-08995-14	gallons	16" x 20" x 16"	24¾" x 23" x 20¾"	230 VAC, 14 A	18	25 40	120 (54)	

## Multi-Frequency Ultrasonic Cleaners

#### Electrically-controlled discharge drain-no other ultrasonic cleaner has it!

- Aggressive cleaning at 25 kHz removes heavy contaminants
- Fine cleaning at 45 kHz—cleans tiny crevices and protects fragile surfaces
- Rugged stainless steel construction—ready for continuous industrial use

Reduce cleaning time and operating costs with these all-in-one cleaners. Degassed cleaning liquids eliminate long waiting periods and optimize cavitation. Sweeping feature ensures uniform sound field distribution. Individually control frequencies, degasser, sweep, and discharge drain.

Heater controls temperature from 20 to 85°C (68 to 185°F). Operate continuously or set timer for a period of up to 15 minutes.

The optional stainless steel cover helps cleaner retain heat. Optional stainless steel mesh baskets ho ve jobs in advance.

What's incl and a 71/2-ft power cord (115 VAC m have a European plug; 200 and 400 VAC models have open ends for a firm or fixed connection).

Id small items—order several to prepare consecutiv
luded: heater, timer, integral handles, nonskid feet,
nodels have a U.S. standard plug; 230 VAC models h
00 VAC models have open ends for a firm or fixed o



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08995-00



Cleaner 08871-20 shown with optional cover and basket

### SO9001:2000

Catalog	Capacity	Tank dimensions	Overall dimensions	Power	Shpg wt	Price	Stainless s	teel covers	Stainless steel	mesh baskets
number	Gapacity	(L x W x H)	(L x W x H)	(50/60 Hz)	lb (kg)	FILE	Cat. no.	Price	Cat. no.	Price
<u>KH-08871-00</u> KH-08871-05	1.3 gallons	93/8" x 51/16" x 57/8"	133/8" x 117/8" x 141/2"	115 VAC, 3.5 A 230 VAC, 1.7 A	25 (11.4)		<u>KH-08871-60</u>		<u>KH-08871-70</u>	
<u>KH-08871-10</u> KH-08871-15	4.0 gallons	11¾" x 9¾" x 7¼/16"	15¾" x 16¾" x 16½"	115 VAC, 8.7 A 230 VAC, 4.3 A	33 (15.0)		<u>KH-08871-61</u>		<u>KH-08871-71</u>	
<u>KH-08871-20</u> KH-08871-25	5.5 gallons	12 <sup>7</sup> /8" x 11 <sup>3</sup> /4" x 9"	24¼" x 27½" x 22½"	115 VAC, 8.7 A 230 VAC, 4.3 A	51 (23.2)		<u>KH-08871-62</u>		<u>KH-08871-72</u>	
<u>KH-08871-30</u> KH-08871-35	12.0 gallons	19½" x 11¾" x 13 <sup>1</sup> ½"	24½" x 33½" x 22½"	200 VAC, 15 A 400 VAC, 7.5 A	77 (35.0)		<u>KH-08871-63</u>		<u>KH-08871-73</u>	
<u>KH-08871-40</u> KH-08871-45	25.0 gallons	23 <sup>7</sup> ⁄16" x 19 <sup>1</sup> ⁄2" x 13 <sup>11</sup> ⁄16"	33¼" x 39¾" x 22½"	200 VAC, 30 A 400 VAC, 15 A	220 (99.8)		<u>KH-08871-64</u>		<u>KH-08871-74</u>	

#### **Tank Brushes**

These durable cleaning brushes feature a white plastic handle that won't support bacteria or hold water. Brushes measure 61/2"L x 31/8" dia; total length is 151/2".

Specifications & Ordering Information

Bristles	Color	Cat. no.	Price
Nylon	White	EK-84550-00	
Polyester	Blue Red	EK-84550-01 EK-84550-02	
A-shaped nylon	Yellow Green	EK-84550-03 EK-84550-04	



### Cole-Parmer\* Zymit® Enzyme Cleaner

Ideal for use in ultrasonic cleaners and glassware washers. This enzyme-based liquid cleaner removes biological materials from chemical, food, and pharmaceutical equipment. Cleaner has pH of 7.5 allowing you to use it with delicate materials and metals.

Catalog number	Quantity description	Price
EK-18101-30	One 1-L bottle	
EK-18101-20	Case of twelve 1-L bottles	



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Cole-Parmer\* • U.S. 800-323-4340 toll-free, 847-549-7600 (outside the U.S.), www.coleparmer.com Canada 800-363-5900 • India 91-22-6716-2222 • UK 0500-345-300