

# *Welcome to*

# **KUDOS**

# *Technology in*

# *Ultrasonic Cleaning*

KUDOS takes pride in supplying the highest quality ultrasonic cleaners worldwide. As a leading manufacturer in the ultrasonic technology, KUDOS announces the release of its latest double frequency 35/53kHz ultrasonic cleaners, which incorporate the innovative and patent technology of KUDOS. This latest technology provides:

- Choice of double frequency 35kHz/53kHz for coarse/fine cleaning
- Deeper penetration reaches into holes and crevices
- 1% increment of ultrasonic power finetune in the range of 40-100%
- Automatic shutoff at end of cleaning via electronic timer from 1 to 199 minutes
- Large LCD Display presents a menu of functional readouts
- Significantly reduced noise over conventional ultrasonic cleaners

## **Applications of KUDOS ultrasonic cleaners**

1. jewelry, watch parts, coins, handcrafts
2. optics, lens, medical and surgical tools
3. lab glasswares, printer heads, computer parts
4. electronics, semi-conductor components
5. bearings, moulds, nozzles, ceramic and metal parts
6. fine cleaning prior to plating, coating or after polishing
7. mixing, dispersing or degassing of chemical materials
8. anything that requires serious cleaning

## HP Series 53kHz High Frequency Ultrasonic Cleaners

### Features

- ◆ User-friendly Control Panel
- ◆ Large LCD Display for easy readout
- ◆ High Frequency 53kHz for fine cleaning
- ◆ 1% increment ultrasonic power fine-tuning
- ◆ Electronic Timer from 1 to 199 minutes
- ◆ Non-volatile memory
- ◆ Non-glare SUS304 stainless steel



### Description

KUDOS HP Series High Frequency Ultrasonic Cleaners provide an effective method to remove grease, dust or other contaminants from surfaces and cavities of small objects such as optics, glassware, jewelry, watches, dentals, electronics. Compared to a conventional 40kHz ultrasonic cleaner, KUDOS HP Series High Frequency Ultrasonic Cleaners feature significantly reduced noise and deeper penetration. The advanced digital control design offers you maximum flexibility over the parameters setting, all in one touch of the control panel. KUDOS HP Series High Frequency Ultrasonic Cleaners are available in capacities range from 3L to 22.5L.

### Specifications and Ordering Information

Model	Frequency	Ultrasonic Power (W)	Capacity ( L )	Tank Size ( cm )	External Size (cm)	Drain Valve	Weight
SK2200HP	53kHz	90	3L	24x14x10	26x16x22	No	4kg
SK3200HP	53kHz	135	4.5L	30x15x10	32x17x23	No	5kg
SK3300HP	53kHz	160	6L	30x15x15	32x17x28	No	6kg
SK5200HP	53kHz	200	10L	30x24x15	32x26x29	Yes	8kg
SK2500HP	53kHz	250	10L	30x24x15	32x26x29	Yes	8kg
SK6200HP	53kHz	280	10.5L	50x14x15	52x16x31	Yes	10kg
SK7200HP	53kHz	350	15L	33x30x15	35x32x30	Yes	12kg
SK8200HP	53kHz	500	22.5L	50x30x15	51x32x31	Yes	15kg

## HP+Heating 53kHz Series High Frequency Ultrasonic Cleaners

### Features

- ◆ User-friendly Control Panel
- ◆ Large LCD Display
- ◆ Digital Heating up to 60 deg. C
- ◆ High Frequency 53kHz for fine cleaning
- ◆ 1% increment power fine-tuning
- ◆ Electronic Timer from 1 to 199 minutes
- ◆ Non-volatile memory
- ◆ Non-glare SUS304 stainless steel



### Description

The HP Heating Series ultrasonic cleaners are specifically designed for fine cleaning application needs found in jewelry, watch making, electronics or semi-conductors, etc. Its 53kHz high frequency and excellent temperature accuracy provide an ideal method to remove small particulate size contaminants down to microns. Compared to a conventional 40kHz ultrasonic cleaner, the HP Heating Series ultrasonic cleaners feature significantly reduced noise and deeper penetration. The advanced digital control offers you maximum flexibility over the setting, all in one touch of the control panel.

### Specifications and Ordering Information

Model	Frequency	Ultrasonic Power	Heating Power	Capacity ( L )	Tank Size ( cm )	External Size (cm)	Drain Valve	Weight
SK2210HP	53kHz	90W	100W	3L	24x14x10	26x16x22	No	4kg
SK3210HP	53kHz	135W	150W	4.5L	30x15x10	32x17x23	No	5kg
SK3310HP	53kHz	160W	260W	6L	30x15x15	32x17x28	No	6kg
SK5210HP	53kHz	200W	300W	10L	30x24x15	32x26x29	Yes	8kg
SK2510HP	53kHz	250W	300W	10L	30x24x15	32x26x29	Yes	8kg
SK6210HP	53kHz	280W	320W	10.5L	50x14x15	52x16x31	Yes	10kg
SK7210HP	53kHz	350W	450W	15L	33x30x15	35x32x30	Yes	12kg
SK8210HP	53kHz	500W	650W	22.5L	50x30x15	51x32x31	Yes	15kg

## LHC Dual Frequency 35/53kHz Series Ultrasonic Cleaners

### Features

- ◆ User-friendly Control Panel
- ◆ Large LCD Display
- ◆ Dual Frequency 35/53kHz
- ◆ 1% increment ultrasonic power fine-tuning
- ◆ Electronic Timer from 1 to 199 minutes
- ◆ Non-volatile memory
- ◆ Non-glare SUS304 stainless steel



### Description

KUDOS LHC Series Dual Frequency Ultrasonic Cleaners incorporate our latest, innovative and patented technology. At 35kHz low frequency, it is ideal for fast removing of large particle size contaminants found in coarse cleaning. While at 53kHz high frequency, it is best suited to remove small particles contaminants down to microns from precision parts. Conventional single frequency ultrasonic cleaners result in "standing waves" in the cleaning bath, a direct consequence of these standing waves is that some areas are excessively cleaned while others left untouched. Using KUDOS LHC Dual Frequency Ultrasonic Cleaners, these problems do not exist. KUDOS LHC Dual Frequency Ultrasonic Cleaners incorporate the optimum power, penetration required to address these applications. They are compact yet without compromise.

### Specifications and Ordering Information

Model	Frequency	Ultrasonic Power	Capacity ( L )	Tank Size ( cm )	External Size (cm)	Drain Valve	Weight
SK2200LHC	35/53kHz	90W	3L	24x14x10	26x16x22	No	4kg
SK3200LHC	35/53kHz	135W	4.5L	30x15x10	32x17x23	No	5kg
SK3300LHC	35/53kHz	160W	6L	30x15x15	32x17x28	No	6kg
SK5200LHC	35/53kHz	200W	10L	30x24x15	32x26x29	Yes	8kg
SK2500LHC	35/53kHz	250W	10L	30x24x15	32x26x29	Yes	8kg
SK6200LHC	35/53kHz	280W	10.5L	50x14x15	52x16x31	Yes	10kg
SK7200LHC	35/53kHz	350W	15L	33x30x15	35x32x30	Yes	12kg
SK8200LHC	35/53kHz	500W	22.5L	50x30x15	51x32x31	Yes	15kg

## LHC+Heating Dual Frequency 35/53kHz Series Ultrasonic Cleaners

### Features:

- ◆ User-friendly Control Panel
- ◆ Large LCD Display
- ◆ Dual Frequency 35/53kHz
- ◆ 1% increment ultrasonic power fine-tuning
- ◆ Digital heater up to 60 deg.C
- ◆ Electronic Timer from 1 to 199 minutes
- ◆ Non-volatile memory
- ◆ Non-glare SUS304 stainless steel



### Description

KUDOS LHC+Heating Ultrasonic Cleaners incorporate the optimum power, penetration, temperature required to address the most demanding cleaning applications. By combining low frequency and high frequency, coupling with the precise bath temperature, it offers you maximum control over your cleaning applications. This latest technology provides superior and deep penetration throughout the entire bath, saving time and greatly improves cleaning efficiency. The LHC+Heating ultrasonic cleaners are the latest from KUDOS, it is advanced, efficient, and highly durable, you will discover why there is simply no comparison with conventional ultrasonic cleaners.

### Specifications and Ordering Information

Model	Frequency	Ultrasonic Power	Heating Power	Capacity	Tank Size	External Size (cm)	Drain Valve	Weight
SK2210LHC	35/53kHz	90W	100W	3L	24x14x10	26x16x22	No	4kg
SK3210LHC	35/53kHz	135W	150W	4.5L	30x15x10	32x17x23	No	5kg
SK3310LHC	35/53kHz	160W	260W	6L	30x15x15	32x17x28	No	6kg
SK5210LHC	35/53kHz	200W	300W	10L	30x24x15	32x26x29	Yes	8kg
SK2510LHC	35/53kHz	250W	300W	10L	30x24x15	32x26x29	Yes	8kg
SK6210LHC	35/53kHz	280W	320W	10.5L	50x14x15	52x16x31	Yes	10kg
SK7210LHC	35/53kHz	350W	450W	15L	33x30x15	35x32x30	Yes	12kg
SK8210LHC	35/53kHz	500W	650W	22.5L	50x30x15	51x32x31	Yes	15kg

# KUDOS®

CE ISO9001

[www.kudosultrasonic.com](http://www.kudosultrasonic.com)

## HP Series 53 kHz High Frequency Ultrasonic Cleaners



### Features:

- \* 53kHz high frequency designed for fine cleaning in delicate parts
- \* 1% increment of ultrasonic power fine-tuning in the range of 40-100%
- \* Automatic shutoff at end of cleaning via electronic timer from 1 to 199 minutes
- \* Non-volatile memory retains preset parameters during a power interrupt
- \* Large, user-friendly LCD Display presents a menu of functional readouts
- \* Significantly reduced noise over conventional ultrasonic cleaners
- \* Non-glare type SUS304 stainless steel for durability and easy cleaning

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## HP\_Heating Series 53 kHz High Frequency Ultrasonic Cleaners



### Features:

- \* 53kHz high frequency designed for fine cleaning in delicate parts
- \* Digital heating of bath temperatures up to 60°C
- \* 1% increment of ultrasonic power fine-tuning in the range of 40-100%
- \* Automatic shutoff at end of cleaning via electronic timer from 1 to 199 minutes
- \* Non-volatile memory retains preset parameters during a power interrupt
- \* Large, user-friendly LCD Display presents a menu of functional readouts
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## LHC\_series 35/53 kHz Dual Frequency Ultrasonic Cleaners



### Features:

- \* Dual frequency choice 35/53kHz designed for coarse/fine cleaning
- \* 1% increment of ultrasonic power fine-tuning in the range of 40-100%
- \* Automatic shutoff at end of cleaning via electronic timer from 1 to 199 minutes
- \* Non-volatile memory retains preset parameters during a power interrupt
- \* Large, user-friendly LCD Display presents a menu of functional readouts
- \* Significantly reduced noise over conventional ultrasonic cleaners
- \* Non-glare type SUS304 stainless steel for durability and easy cleaning
- \* Lovely design and a sleek professional appearance

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LHC\_Heating Series 35/53 kHz Dual Frequency Ultrasonic Cleaners



## Features:

- \* Dual frequency choice 35/53kHz designed for coarse or fine cleaning
- \* Digital heating of bath temperatures up to 60°C
- \* 1% increment of ultrasonic power fine-tuning in the range of 40-100%
- \* Automatic shutoff at end of cleaning via electronic timer from 1 to 199 minutes
- \* Non-volatile memory retains preset parameters during a power interrupt
- \* Large, user-friendly LCD Display presents a menu of functional readouts
- \* Significantly reduced noise over conventional ultrasonic cleaners
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## Choosing the Correct Procedure

Successful ultrasonic cleaning depends much on the **fluid temperature** and **cleaning agent**. Fluid temperature plays an important role in the cleaning process. Ultrasonic cleaning is most effective when fluid temperatures are high. The optimum temperatures for diverse applications vary greatly. For certain heavy-duty cleaning applications, higher temperatures may be required. When cleaning delicate items, lower temperatures should be employed.

Cleaning Agents: Not all cleaning agents are compatible with ultrasonic cleaning, and using an incompatible chemical will render an ultrasonic cleaner ineffective. Many chemical characteristics must be considered in the design of an ultrasonic cleaning agent. A proper formulation will facilitate an abundance of cavitation activity, creating an ideal cleaning environment specific to the residue and material being cleaned. An ultrasonic cleaning agent must have adequate wetting qualities, as this has a direct impact on the intensity of the cavitation activity. The agent must also have sufficient surfactant qualities in order to suspend the contaminants, otherwise, they will settle back onto items being cleaned. Effective cleaning agents should be formulated specifically for the application and must be able to break the bonds that hold the contaminants to the item. Additionally, all cleaning agents must be formulated to be user safe and environmentally compatible.

## KUDOS 53kHz High Frequency Ultrasonic cleaners

**Versus**

## Conventional 40kHz Ultrasonic Cleaners

Item	Conventional 40kHz ultrasonic cleaners	KUDOS 53kHz ultrasonic cleaners
Frequency	40kHz	53kHz
Noise	High	Low
Purpose	Coarse Cleaning	Fine Cleaning
Timer	Mechanical	Digital
Heater	Mechanical	Digital
Setting	Mechanical	Digital
Display	No	LCD Display
Power Fine-tuning	No	1% increment fine-tuning
Non-volatile memory	No	Yes

KUDOS also offers its economical range of ultrasonic cleaners. The low cost SK-H Series ultrasonic cleaners are designed to meet the short-budget requirement of the users, while still maintaining excellent material quality and performance. These economical type ultrasonic cleaners share the same digital setting user-friendly LCD interface technology as the award-winning HP and LHC series ultrasonic cleaners, yet cost much less. Its economical but effective performance combine to make it the ideal choice for most coarse industrial cleaning applications.



**Features:**

- \* User-friendly Control Panel
- \* Large LCD Display
- \* Digital Parameters Setting
- \* High ultrasonic power output
- \* Electronic Timer from 1 to 99 minutes

### SK Series 35kHz Ultrasonic Cleaners (non-heating)

Model	Frequency	Power (W)	Timer (min)	Volume (L)	Tank Size (cm)	External Size (cm)	Drain Valve
SK2200	35kHz	100	1-99	3L	24x14x10	26x16x22	No
SK3300	35kHz	180	1-99	6L	30x15x15	32x17x28	No
SK5200	35kHz	200	1-99	10L	30x24x15	32x26x29	Yes
SK250	35kHz	250	1-99	10L	30x24x15	32x26x29	Yes
SK7200	35kHz	350	1-99	15L	33x30x15	35x32x30	Yes
SK8200	35kHz	500	1-99	22.5L	50x30x15	51x32x31	Yes

## SK-H Series 53kHz Ultrasonic Cleaners (non-heating)



Model	Frequency	Power (W)	Timer (min)	Volume (L)	Tank Size (cm)	External Size (cm)	Drain Valve
SK1200H	53kHz	50	1-99	2L	15x14x10	26x16x22	No
SK2200H	53kHz	100	1-99	3L	24x14x10	26x16x22	No
SK3200H	53kHz	150	1-99	4.5L	30x15x10	32x17x28	No
SK3300H	53kHz	180	1-99	6L	30x15x15	32x17x28	No
SK5200H	53kHz	200	1-99	10L	30x24x15	32x26x29	Yes
SK250H	53kHz	250	1-99	10L	30x24x15	32x26x29	Yes
SK7200H	53kHz	350	1-99	15L	33x30x15	35x32x30	Yes
SK8200H	53kHz	500	1-99	22.5L	50x30x15	51x32x31	Yes

## Degassing + Cleaning (without heating)

Unique to other ultrasonic cleaners, the KUDOS SK-G/GT series ultrasonic cleaners add degassing function to their features. Degassing is the process of removing small suspended gas bubbles and dissolved gas from a liquid prior to further processing. Useful ultrasonic cavitation occurs after gasses have been removed from the cleaning solution, leaving a vacuum in the formed bubble. When the high pressure wave hits the bubble wall, the bubble collapses, it is the energy released by this collapse that will assist a detergent in breaking the bonds between parts and their dirt. Degassing is required in a variety of applications like semi-conductors, chemical solutions, pharmaceuticals or HPLC Mobile Phase. KUDOS SK-G/GT series run in pulse mode to remove gas bubbles from the liquids for a higher efficiency. Compared to a conventional ultrasonic cleaner, it offers you more flexibility over your laboratory tasks.



Model	Frequency	Timer (min)	Volume (L)	Tank Size (cm)	External Size (cm)	Drain Valve
SK03G	53kHz	1-99	3L	24x14x10	26x16x22	No
SK06G	53kHz	1-99	6L	30x15x15	32x17x28	No
SK10G	53kHz	1-99	10L	30x24x15	32x26x29	Yes
SK14G	53kHz	1-99	14L	30x24x15	32x26x29	Yes
SK15G	53kHz	1-99	15L	50x14x15	52x16x31	Yes
SK20G	53kHz	1-99	22.5L	33x30x15	35x32x30	Yes
SK30G	53kHz	1-99	30L	50x30x15	51x32x31	Yes

## Degassing + Cleaning (with heating) Ultrasonic Cleaner



Model	Frequency	Timer (min)	Heating Power	Volume (L)	Tank Size (cm)	External Size (cm)	Drain Valve
SK03GT	53kHz	1-99	75W	3L	24x14x10	26x16x22	No
SK06GT	53kHz	1-99	150W	6L	30x15x15	32x17x28	No
SK10GT	53kHz	1-99	270W	10L	30x24x15	32x26x29	Yes
SK14GT	53kHz	1-99	345W	14L	30x24x15	32x26x29	Yes
SK15GT	53kHz	1-99	390W	15L	50x14x15	52x16x31	Yes
SK20GT	53kHz	1-99	520W	22.5L	33x30x15	35x32x30	Yes
SK30GT	53kHz	1-99	630W	30L	50x30x15	51x32x31	Yes

An ISO Registered Company

## CERTIFICATE OF ASSESSMENT

AQA International, LLC, attests that:

***Shanghai Kudos Ultrasonic Instrument  
Co., Ltd.***

*F3/18, No.201, XinQiaoMinYi Road,  
SongJiang Area, Shanghai, China 201612*

with a scope of :

*Design and Manufacture  
of Ultrasonic Cleaning Instrument*

Is in compliance with the International Quality System Standard ISO 9001:2008.

"Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organization."

The effectiveness of this certificate shall be validated by periodic surveillance audit of AQA for maintenance.  
Validity of certificate please visit at [www.aqachina.com](http://www.aqachina.com)

Certificate No.:	CN012785
Registration Period:	12/11/2009 to 03/05/2012
Initial Registration:	12/11/2009



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