



ULTRASONIC CLEANING

The KLN ultrasonic product range

consists of the complete ultrasonic cleaning palette ranging from high frequency generators in user desired performance range through ultrasonic oscillators as submersible transducers or oscillating plates, oscillating tanks and modular units to complex special units with various cleaning media. Since more than 60 years KLN Ultraschall AG is into developing and applying the ultrasonic technology for industrial cleaning. With continuous advancement in this method they have made available a wide range of environment-friendly cleaning systems for a variety of industrial cleaning processes.



Information as well as the brochure is available on our homepage www.kln.de. We will be pleased to answer all your queries and will support you right from your project phase or in laboratory tests.

IMMERSION CLEANING

STANDARD OSCILLATING TANKS



KLN Ultraschall
A Crest Group Company



Ultrasonic cleaning



Transport



Rinsing



Drying



Rust inhibition



Spray cleaning



ULTRASONIC CLEANING

Standard cleaning devices for industrial use



Ultrasonic oscillating tanks
of series SW 12 to SW 90

Design

- self-supporting housing
- draw-polished stainless-steel panels
- welded tanks (SW 40-90)
- front operation
- heating and thermostatic temperature control
- switch for ultrasonic (timed as well as continuous operation)
- drainage at the front side with drain valve made of stainless steel
- maximum operational stability and durability
- easy to maintain
- heat insulation
- lid



Options

- material transport
- lifting mechanism
- manutrans (manual transport)
- pump filter system (from SW 40 onwards)
- oil separation system (from SW 40 onwards)
- hot air dryer



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Ultrasonic accessories



Baskets

Technical description

- solid frame made of round material
- wire mesh coating
- mesh width 10 mm
- basket feet made of plastic
- height 20 mm
- maximum load 10 kg
- material stainless steel

We also offer special product carriers
for your particular requirements.

Rotating basket

Technical description

- drum dimensions dia 150 x 200 mm
- intake capacity max. 7.5 l
- drum made of perforated sheet 8 x 8 mm, incl. 3 stumbling ribs
- front side lid with clamp lock
- dimensions approx. L 150 x W 240 x H 550 mm
- direct current drive motor, mounted in the grip
- speed frequency approx. 10 rpm/min
- rectifier (approx. 150x150x130 mm)
- connecting cable for the drive motor, length approx. 2.5 m
- drive through a covered chain
- solid base frame with 4 plastic feet
- material: stainless steel





Technical data / ultrasonic oscillating tank

Series SW	type	SW 12	SW 25	SW 40	SW 60	SW 90
Effective dimensions of the tank	[mm]	290x230x160	500x300x160	500x300x250	600x400x300	600x400x400
Outer dimensions	[mm]	345x285x410	550x345x410	600x400x500	660x520x840	660x520x840
Filling capacity approx.	[l]	12	25	40	60	90
Ultrasonic power	[W]	600/300	1200/600		1800/900	
Heating power	[W]	1000	2000		3000	5000
Connecting load	[kVA]	1,3	2,5		4,5	6,5
Connecting voltage		230V, 50 Hz, 1Ph,N, PE			230V/400V, 50Hz, 3Ph, N, PE	
Outer dimensions of the basket	[mm]	220x160x100	400x200x120		500x300x150	

Series SWC	type	SWC 02-SR	SWC 04-SR	SWC 4-D	SWC 12-SR	SWC 12-D
Effective dimensions of the tank	[mm]	148x134x100	237x134x150		297x237x200	
Outer dimensions	[mm]	175x165x270	265x162x295		325x265x335	
Filling capacity approx.	[l]	2	4		12	
Ultrasonic power	[W]	120/60	200/100		360/180	
Heating power	[W]	90	200		600	
Connecting load	[kVA]	0,15	0,3		0,8	
Connecting voltage		230V, 50 Hz, 1Ph,N, PE				
Outer dimensions of the basket	[mm]	115x115x075	210x110x130		265x200x175	

Series SWC	type	SWC 25-SR	SWC 25-D
Effective dimensions of the tank	[mm]	502x297x200	
Outer dimensions	[mm]	530x325x365	
Filling capacity approx.	[l]	25	
Ultrasonic power	[W]	600/300	
Heating power	[W]	1000	
Connecting load	[kVA]	1,4	
Connecting voltage		230V, 50 Hz, 1Ph,N, PE	
Outer dimensions of the basket	[mm]	465x265x175	



Ultrasonic oscillating tanks SW 12 to SW 90

Technical data

Ultrasonic oscillating tanks of series SW 12 to SW 40 are compact table-mounted devices for industrial use. SW 60 and SW90 are vertical cleaning devices supplementing our table-mounted devices, also designed for industrial use. This series also includes a lid with a handle.

The oscillating tanks from SW 25 onwards also have the option of frequencies 30/40 kHz and also can be offered as a combination.

The ultrasonic mechanism can be switched on from the front side for continuous operation or for timed operation.

The ultrasonic generators are integrated in stainless steel housings and are protected against dry running. The devices have a heating installed on the outer side of the tank with a thermostat control.

Setting can be done from the front side.

The oscillating tanks are made of stainless steel; (tank finishing is deep-drawn and electro-polished) upto SW 25.

The oscillating tanks from SW 40 onwards are welded. Here there is also the option of electro-polishing. The residues can be emptied by a drain valve on the floor. The product range includes heated and cold rinsing tanks.

The oscillating tanks must be operated only with aqueous cleaning media.

Ultrasonic oscillating tanks for determining the residual contamination SW 12 to SW 90

We offer our standard product also with the facility of determining the residual contamination.

Ultrasonic oscillating tanks for use of solvents

We also offer standard oscillating tanks SW 12 to SW 40, in which inflammable solvents with an inflammation point > 55°C can be used.





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Standard ultrasonic oscillating tanks of the series SWC 02, SWC 04, SWC 12 and SWC 25

are compact table-mounted cleaning devices for industrial use. Our SWC units are characterised by their compact design, the particularly good cost-benefit ratio as well as a short delivery period.

All the oscillating tanks have a frequency of 45 kHz. The ultrasonic radiation can be selected either for continuous operation or timed operation by a switch on the front side. The ultrasonic generators are integrated in a stainless steel housing.

The devices have an installed heating system and can be heated up to 800 °C. They can be set from the front.



Design

Series D

- digital display of temperature, ultrasonic power and cleaning time
- adjustable cleaning time or continuous time through digital display
- adjustable tank temperature 20-80 °C with digital display
- ultrasonic power adjustable in nine steps. This feature enables optimal adaptation of the ultrasonic power to the parts to be cleaned
- degassing function for degassing of the bath liquid



ULTRASONIC CLEANING

Design

Series S/R

- digital display of temperature and cleaning time
- adjustable cleaning time or continuous operation through digital display
- adjustable tank temperature 20-80 °C with digital display

Technology

- tank capacity 1.8 - 26.1 l
- frequency 45 kHz or 132 kHz
- from SWC 12 onwards the tanks are equipped with an exhaust valve
- cleaning tank is deep-drawn, made of stainless steel CN18/10 as per EN631
- resistance capacity pH 2 to pH 13,5
- high-performance PZT ultrasonic converter with ceramic technology
- heating with low liquid level control
- digital control of the ultrasonic generator with the following characteristics:
 - constant power, independent of the tank temperature, level of filling and product to be cleaned. Ensures constant, reproducible cleaning results.
 - Homogenous sound field and power distribution as well as avoidance of standing waves due to frequency modulation (sweep)
 - double half-wave sound