



COMPETITION

BEDIENUNGSANLEITUNG - NOTICE D'UTILISATION - OPERATING INSTRUCTIONS



512.5340

-  **Ultraschall-Teilereiniger**
-  **Nettoyeur ultrasonique pour pièces**
-  **Ultrasonic parts cleaner**
-  **Limpiador ultrasónico de piezas**
-  **Pulitore a ultrasuoni per componenti**
-  **Ultralydsrenser til dele**
-  **Myjka ultradźwiękowa do części**
-  **Ultrasonie onderdelenreiniger**
-  **Ультразвуковая мойка для деталей**
-  **منظف قطع بالموجات فوق الصوتية**

DE/TTE/AAI/12-05-2026

KS Tools Werkzeuge und Maschinen GmbH • Seligenstädter Grund 10 –12 • 63150 Heusenstamm - GERMANY
e-mail: customerservice@competitiontools.com • www.competitiontools.com

KS Tools • PDA Région de Brumath • 1, rue de Londres • 67670 Mommenheim - FRANCE
e-mail : contact@competitiontools.com • www.competitiontools.com



Introduction

Dear customer!

We are very pleased that you decided to purchase this product from kstools. Thank you for your confidence in us. You can find all the information you need in these operating instructions. Please read the instructions completely with care and observe the advice given. The operating instruction is part of the item and should be kept intact.

If you have any uncertainties or further questions, please contact: customerservice@competitiontools.com

1. Provisions for use

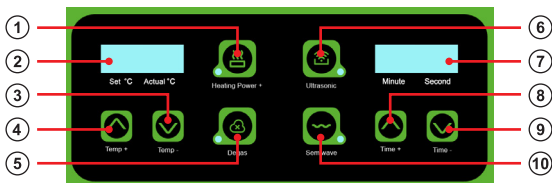
Electronic factory, utensil, hardware, machinery, communication, biological, medical instrument, glasses, optical, jewelry, clock, watch, chemical, textile, auto part, ships, aviation, mining area, commercial cleaning.

The manufacturer is not liable for personal injuries and material damages which result from improper use.

2. Technical data

Unit size:	360 x 325 x 285 mm
Tank size:	330 x 300 x 150 mm
Volt:	AC 220 – 240 V; 50Hz
Ultrasonic power:	360 / 180 W
Heating power:	500 W
Frequency:	40 kHz
Timer:	0 – 60 min
Full capacity:	15 L
Operating temperature:	max. 80°C

3. Components



1	Heater ON / OFF	6	Ultrasonic ON / OFF
2	Digital display screen	7	Digital display screen
3	Temperatur -	8	Time +
4	Temperatur +	9	Time -
5	Deags ON / OFF	10	Semiwave ON / OFF



1	Lid
2	Tank
3	Handle
4	Ventilation holes
5	Drainage
6	Control board
7	Corner pad

8	Basket
9	Plug
10	Hose with accessories
11	Power switch
12	Fuse (backup fuse)
13	Power plug



4. Safety and usage instructions

Tools may in principle only be used for the purpose intended, under the conditions envisaged and within the limitations as to their use.

Please make sure power supply is in rated range, before plug the machine.

Refitting is strictly prohibited! Attention that the control panel will be eroded by organic solution, strong acid and strong alkali.

5. Operation

5.1 The basic principle of ultrasonic cleaning

The cleaner uses ultrasonic energy (40 kHz) in the form of sound waves to create millions of tiny microscopic bubbles in the solution that even works its way into holes and hidden cavities, loosening dirt on all surfaces that the solution touches. This action called cavitation, occurs thousands of times per second to gently yet thoroughly scrub contamination off the article being cleaned. When you lift the item out of the cleaner, it's microscopically clean.

5.2 Notes before use

1. Ensure the power supply is in rated range before power cable is connected. Refitting is strictly prohibited! Attention that the control panel will be eroded by organic solution, strong acid and strong alkali.
2. Ensure the earth wiring is well connected before starting.
3. Ensure the power switch should be placed in the "O" position before starting.
4. Do not operate if the tank is empty, or ultrasonic generator will be damaged. If heating is needed, the water level shouldn't be less than 2/3.
5. Please close the lid to reduce noise and pay attention to water and steam in case of burning skin while open the lid.
6. Do not relocate the machine when fluid in the tank in case of overflow.
7. Please choose the proper sizes or types of baskets according to the object to be cleaned
8. It is recommended to use water-soluble cleaning agent for ultrasonic cleaning machine, and add an appropriate amount of cleaning liquid to the cleaning tank according to the cleaning needs; do not use flammable liquids/such as alcohol, gasoline, etc., because heating and long-term vibration will cause the liquid to heat up, so beware of fire!
9. Do not use the machine in severe environment:
 - the place where temperature changes fiercely
 - the place where humidity is too high and is easy to produce dew
 - the place where vibration or impact is strong
 - the place where exists corrosive gas or dust
 - the place where water, oil or chemicals splash
 - the place where is filled with explosive and flammable gas



5.3 Before Operating Your Cleaner

1. Add cleaning liquid



Add an appropriate amount of cleaning liquid to the cleaning tank as required for cleaning, and ensure that the liquid level is not lower than 2/3 of the height of the inner tank when the heating is turned on; Do not use flammable liquids/such as alcohol, gasoline, etc., because heating and long-term vibration will cause The liquid heats up, beware of fire! It is strictly forbidden to use strong acid and alkali corrosive liquid to avoid chemical reaction and corrosion of the inner tank!

2. Open power



Plug the cleaner into a grounded outlet. Turn on the power switch at the tank back, then machine is power on („O“ is closed, and „—“ is open).



For the first Boot, time display show setting time at random, press touch „Time +“ key one time, „the setting time“ on the display increase by 1 minute correspondingly, Touch „Time -“ key to decrease time setting by 1 minute. Touch „ON/OFF“ switch after set the time well, ultrasonic indicator turns red and machine starts working based on specified the parameters, meanwhile timer begin to count down and stop working until time shows „00:00“, automatically.



The temperature is randomly displayed at the first boot, and the temperature can be set. Each time the „Temp +“ key is pressed, the temperature increases by 1°C, and each time the „Temp -“ key is pressed, the temperature decreases by 1°C. After setting the temperature, press the „ON/OFF“ button and the machine starts to heat up. When the temperature reaches the set temperature, the heating indicator light goes out.



Degas

Press „Degas“ button, the machine will work for 9 seconds and stop for 6 seconds.



Semiwave

Touch „Semiwave“ to turn on half-wave mode, and the ultrasonic power is halved. For cleaning delicate objects.



5.4 Power OFF

Presss the ultrasonic „ON/OFF“ button, the ultrasonic stops and the light is off. Presss the heater „ON/OFF“ button, the heating stops and the light is off. And then cut off the power, empty out the liquid, clean the tank and the unit with cloth for next use.

Note: It is recommended to turn off the machine and allow it to rest for 30 minutes after every 100 minutes of continuous operation to prevent damage from excessive use.

5.5 Application

The ultrasonic cleaning machine is made of high-quality stainless steel plate, which is corrosion-resistant and has a long service life. It adopts high-quality ultrasonic transducers and advanced bonding technology, with high electro-acoustic conversion efficiency and strong ultrasonic power output. Equipped with automatic constant temperature heating device, heating range: room temperature ~ 80°C. The ultrasonic cleaner is widely used in precision electronics, paints, filtration systems, watches, glass, metals, jewelry, medical equipment and other industries.

Industry	The cleaning products materials	Clear dirt
Semiconductor	Integrated circuit, power tube, silicon wafer, diode, lead frame, capillary, tray, etc.	Hards, etching oil, stamping oil, polishing wax, dust particles, etc.
Electrical & electronic machine	Tube parts, cathode ray tube, printed circuit board, quartz parts, electronic components, telephone switching equipment, speaker components, power meter, LCD glass, core iron parts, computer floppy disk, video parts, hoop parts, head, photo die mask, etc.	Fingerprint powder, cutting oil, stamping oil, iron filings, polishing materials, walnut powder, polishing wax, resin, dust, etc
Precision machine	Bearing, sewing machine parts, typewriter, textile machine, optical mechanical device, gas valve, watches, cameras, metal filter element, etc.	Machine cutting oil, iron filings, polishing powder, finger print oil, grease, dirt, etc.
Optical device	Glasses, lens prism, optical lens, filter lens, glass device, film, optical fiber, etc.	Plastic, resin, paraffin, finger printing, etc.
Hardware & machinery parts	Bearing, gear, ball, metal shaft parts, tools, adjustable valve and cylinder parts, burner, compressors, hydraulic press, gun and ultracentrifuge, city water faucet, etc.	Cutting oil, iron filings, grease polishing powder, finger printing, etc.
Medical instrument	Medical instrument, denture, etc.	Iron filings, polishing powder, oil, stamping oil, dirt, etc.



Industry	The cleaning products materials	Clear dirt
Electroplate	Galvanized parts, mold, stamping parts, etc.	Polishing scrap iron, oil, black iron shell, rust, oxidation shell, scrap iron, polishing powder, stamping oil, dirt ,etc.
Car parts	Poston ring, carburetor, flow meter housing, compressor shell, electrical components, etc.	Iron filings, polishing powder, oil, stamping oil, dirt, etc.
Chemical fiber	Chemical or artificial fiber nozzle filter protector, chemical fiber texture, etc.	Chemical colloid, glue and other solid material, dust, etc.

6. Maintenance

Incorrect or defective replacement parts can lead to damage.

Regularly use high-pressure wind blown away dust for electrical parts clean the tank at least once a week

7. Checks

All tools are to be checked for damage.

8. Troubleshooting

No.	Problems	Possible causes	Solutions	Remarks
1	No Ultrasonic	A. Power supply not connect B. Fuse broken C. Cable short circuit D. Transducer short circuit E. PCB Board broken F. Other reasons	A. Check and plug power switch B. Check the fitted power supply and change the same specification fuse C. Connect fitted cable or replace a new D. Inquiry our after service engineer E. Check the broken part and change it F. Inquiry our after service engineer	



No.	Problems	Possible causes	Solutions	Remarks
2	Time control failure	A. Timer failure B. Other reasons	A. Replace timer or digital control panel B. Inquiry our after service engineer	
3	No heating	A. Heater power switch bad linkage B. Fuse burn out C. Heating pad burn out D. Digital display board out of control E. Incorrect temperature setting F. Other reasons	A. Check heating plug and connect well. Check outlet line with multimeter: if OK and resistance value is few hundred OHMs. B. Change the same specification fuse C. Replace the bad heating pad if open circuit D. Check the broken part and change it E. The set temperature must be 3°C higher than the actual temperature before heating can be turned on. Please reset the temperature. F. Inquiry our after service engineer	Suggestion 50-60°C
4	Temperature control failure	A. Thermostat loosen B. Thermostat tube broken C. Digital display out of control D. Other reasons	A. Fasten the thermostat header. B. Replace thermostat. C. Check the broken part and change it. D. Inquiry our after service engineer	
5	Not well cleaning	A. Too high too low liquid surface B. Too high too low temperature C. Not suitable cleaning liquid D. Other reasons	A. Adjust liquid into the best surface B. Adjust temperature into the most fitted C. Stop and switch off power supply, replace suitable liquid after the previous liquid cool down D. Inquiry our after service engineer	Suggestion 50-60°C



No.	Problems	Possible causes	Solutions	Remarks
6	Electric leakage	A. The equipment ground wire is not connected well. B. The internal live line or neutral line of the equipment falls off	A. Check whether the internal ground wire and power cable grounding of the device are connected. B. Check if the internal live wire or neutral wire of the machine is fall off.	
7	Scrap	Not repairable or discarded	According to the state related laws and designated units for discarded medical equipment	
8	Other problems		Inquiry our after service engineer	

WARNINGS

			
Do not operate when tank is empty	Don ot use flammable solution	Please use the ground wire correctly	Caution pollution when disposal this product.

9. Disposal

The tool is to be disposed of or recycled in accordance with the legislation of the respective country.

10. Guarantee

The KS Tools Werkzeuge und Maschinen GmbH guarantee applies for all tools that are used under normal usage conditions.

The following are excluded from the guarantee:

- **Consumables** e.g. any type of cutting tools, cutting inserts and disks, cutting and scraping tools, brooms, brushes, files, batteries, bits or bit sockets, rotor blades in pneumatic devices, isolators on heating coils, any type of fuses, carbon brushes, etc.
- **Faulty functioning** of parts that show usage-related or other natural wear and tear, as well as tool defects that can be traced back to usage-related or other natural wear and tear.
- **Defects** in the tool that can be traced back to a failure to observe the operating instructions, improper use, use under abnormal environmental conditions or unsuitable operating conditions, overloading or improper maintenance.
Also defects in tools caused by the use of accessory parts or other parts that are not KS Tools original parts.



- Tools which have been modified or equipped with additions.
- Minor deviations from the intended quality that are however insignificant for the value and suitability for use of the tool.

The guarantee period is 12 months in cases of industrial or equal use.

The guarantee period starts on the date of purchase by the commercial end customer. The date of the original purchase receipt is decisive. For technical products with limited guarantee types A, B and C, the user must principally submit the purchase receipt in addition to the serial number of the device, if present.

The guarantee applies under consideration of the guarantee type for the duration specified in the price list valid on the day the product was purchased.

If no guarantee claim exists for the product (expiration of the guarantee time, guarantee exclusion for the reasons listed in Sec. 2) but the repair is still possible, this will only be carried out following approval of the cost estimate by the user.