

JOKE[®]

Basic-Clean

Ultrasonic cleaners



Instruction Manual

1

List of contents



1	List of contents.....	Page 02
2	Tips on using the manual.....	Page 03
3	Safety instructions.....	Page 04
4	Warranty.....	Page 06
5	Device overview	Page 07
6	Technical data.....	Page 09
7	Operation.....	Page 11
8	Care and Maintenance.....	Page 20
9	Telefax form.....	Page 21

2

Tips on using the manual



This manual has been written for the device user to ensure a problem-free operation, care and maintenance.

Important instructions and information concerning safety and operational reliability have been highlighted.

The symbols used in the manual have the following meanings:

CAUTION!

Working and operating processes which must be observed to the letter to exclude any risk to persons.

IMPORTANT!

Working and operating processes which must be observed to the letter to avoid any damage to the device.

INFORMATION!

Technical information to which the device operator must give special attention.

The illustrations and diagrams are numbered in sequence within each chapter. Some of these illustrations have keys. References to illustrations within the text e. g. (5.1/2) have the following meaning:

5.1 = Figure 5.1

2 = Position 2 in the key to the figure.

Please feel free to call our customer service department at any time should you encounter technical problems which are not dealt with in this manual:

Telephone +49 (0) 22 04 / 8 39 - 0

Telefax +49 (0) 22 04 / 8 39 - 86

INFORMATION!

www.joke.de

Spare parts lists and operating manuals for our products are to be found at www.joke.de.

3

Safety instructions



IMPORTANT!

This device has been built according to the latest technical standards and generally accepted safety regulations. Nevertheless, it can constitute danger to life and limb for operator or third parties and a hazard to the device itself or other equipment during use.

- (1) Only use the device if in perfect working order and for its intended purpose. You must always pay attention to the instruction manual and safety instructions therein and be aware of the risks! Repair any faults which could affect the device's safety immediately by yourself or have these repaired.**

The unit is designed exclusively for cleaning workpieces using the cleaning liquids recommended by the manufacturer. Any other use will be deemed to be contrary to its intended purpose. The manufacturer cannot be held liable for any resulting damages. The risk is borne solely by the user.

Correct use also includes compliance with the instruction manual and an observation of the care and maintenance conditions.

CAUTION!

- (2) Keep the instruction manual handy at the device's place of use.
- (3) Pay attention to and observe generally applicable statutory and otherwise binding regulations relating to accident prevention and environmental protection in addition to the information provided in the instruction manual!
- (4) All personnel commissioned to work on or with the device must have read this instruction manual, and particularly the safety instructions chapter, before starting work. This applies especially for personnel who only work with the device occasionally.**
- (5) Stop the device immediately should you notice changes to the device or its operating behaviour that are relevant to its safety. Have these remedied before restarting work.
- (6) Observe the safety instructions on the device and keep them legible.**
- (7) If changes in the device relevant to safety occur or the operating behaviour is modified, shut the device down immediately. Have the malfunctions remedied.
- (8) Do not carry out any modifications, additions or conversions to the device! This also applies to the installation and adjustment of safety equipment.
- (9) Spare parts must meet the technical requirements specified by the manufacturer. This can only be guaranteed with original JOKE® spare parts.

3

Safety instructions



- (10) Any work on/with the device may only be carried out by qualified, appropriately trained and authorised personnel. Pay attention to minimum statutory age limits!
- (11) Personnel undergoing training or in a general apprenticeship should only be allowed to work with the machine under the constant supervision of an experienced operator!
- (12) Restrain from any type of work that could jeopardise your safety.
- (13) The device may only be used if all protective and safety equipment is in place and in proper working order.
- (14) Do not leave the device unattended when switched on!
- (15) Stop and secure the device immediately in the event of malfunctions! Faults must be repaired at once.
- (16) Do not clean live creatures (animals and plants) in the device!
- (17) Do not reach into the ultrasound bath during the ultrasonic cleaning!**
- (18) Cavitation noises are generated during the ultrasonic cleaning.

CAUTION!

4

Warranty



Joisten & Kettenbaum warrant the correct manufacture of every Joisten & Kettenbaum product which is delivered in accordance with the terms of contract and delivery.

This warranty does not cover damages caused by normal wear and tear, incorrect handling, negligent use, the fitting of non-original spare parts, inadequate care and/or a failure to comply with this technical manual.

IMPORTANT!

The device may only be used by appropriately trained personnel. If it is not, all warranty claims will be forfeited according to the terms of delivery.

5

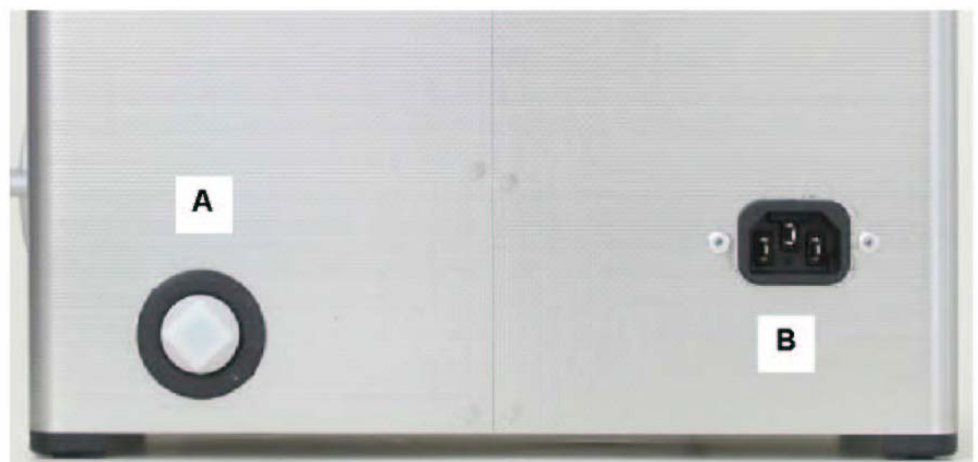
Device overview



Device overview



Rear of device



A Drainage cock

B Mains connection socket

5

Device overview



Cleaning principle

PZT ultrasonic transmitters are fixed under the base of the ultrasonic trough which convert electrical energy into mechanical vibrations.

The cleaning liquid in the bath is excited with 35 KHz and caused to vibrate. At the same time, tiny vacuum bubbles are formed which implode (cavitation) resulting in pore-deep cleaning of the parts arranged in the cleaning liquid.

What are the advantages?

The strong movement of the cleaning liquid allows cleaning at all positions on the workpiece which are covered with the liquid. Even at positions which cannot be reached or can only be reached with great effort, e.g. narrow joints, drilling holes and blind holes, etc.

Contact-free cleaning

The cleaning is performed exclusively by the movement of the liquid and is therefore contact-free. The material to be cleaned is not stressed or damaged, which is almost unavoidable with other cleaning methods, e.g. with a brush, even with great care. The ultrasonic cleaning is therefore gentler than all conventional cleaning methods.

Cleaning without effort

All you need is to place the soiled parts in the cleaning bath and remove them again after a predetermined period and you will already have thoroughly cleaned workpieces available again. Completely without any manual expenditure of effort, solely by the effect of the ultrasound.

A positive additional effect for you:

Owing to the automatic cleaning process, there is a great saving in time for other activities.

6

Technical data



Volume, device dimensions and weight

Device	Overall volume	Recommended useful volume	Internal dimensions of trough	External dimensions of device	Internal dimensions of basket	Weight
80 H	0.80 litres	0.70 litres	190x85x60	206x116x178	177x73x30	2.0 kg
175 H	1.75 litres	1.20 litres	151x137x100	175x180x212	112x103x50	2.1 kg
275 H	2.75 litres	1.90 litres	240x137x100	300x179x214	198x106x50	3.3 kg
425 H	4.25 litres	3.20 litres	240 x 137x150	300x179x264	190x105x75	4.0 kg
575 H	5.75 litres	4.30 litres	300x151x150	365x186x164	255x115x75	5.1 kg
690 H	6.90 litres	5.20 litres	505x137x100	568x179x214	465x106x50	5.6 kg
940 H	9.40 litres	7.30 litres	505x137x150	568x179x264	455x106x75	6.4 kg
950 H	9.50 litres	7.50 litres	300x240x150	365x278x264	255x200x80	5.9 kg
1275 H	12.75 litres	9.00 litres	300x240x200	365x278x321	250x190x115	7.5 kg
1800 H	18.00 litres	12.90 litres	327x300x200	390x340x321	280x250x115	8.5 kg
2800 H	28.00 litres	20.60 litres	505x300x200	568x340x321	455x250x115	11.0 kg
4500 H	45.00 litres	35.00 litres	500x300x300	615x370x467	455x270x194	25.0 kg
9000 H	90.00 litres	75.00 litres	600x500x300	715x570x467	545x450x250	42.0 kg

6

Technical data



Electrical connection and output data

Device	Ultrasonic frequency	Effective ultrasonic output	Ultrasonic peak output	Heating output
80 H	37 kHz	30 watts	240 watts	60 watts
175 H	37 kHz	35 watts	280 watts	60 watts
275 H	37 kHz	80 watts	320 watts	200 watts
425 H	37 kHz	140 watts	560 watts	200 watts
575 H	37 kHz	150 watts	600 watts	400 watts
690 H	37 kHz	150 watts	600 watts	600 watts
940 H	37 kHz	150 watts	600 watts	600 watts
950 H	37 kHz	150 watts	600 watts	400 watts
1275 H	37 kHz	200 watts	800 watts	800 watts
1800 H	37 kHz	200 watts	800 watts	800 watts
2800 H	37 kHz	300 watts	1200 watts	1200 watts
4500 H	37 kHz	400 watts	1600 watts	1600 watts
9000 H	37 kHz	800 watts	3200 watts	2000 watts

7

Operation



Controls of the Basic-Clean ultrasonic cleaners

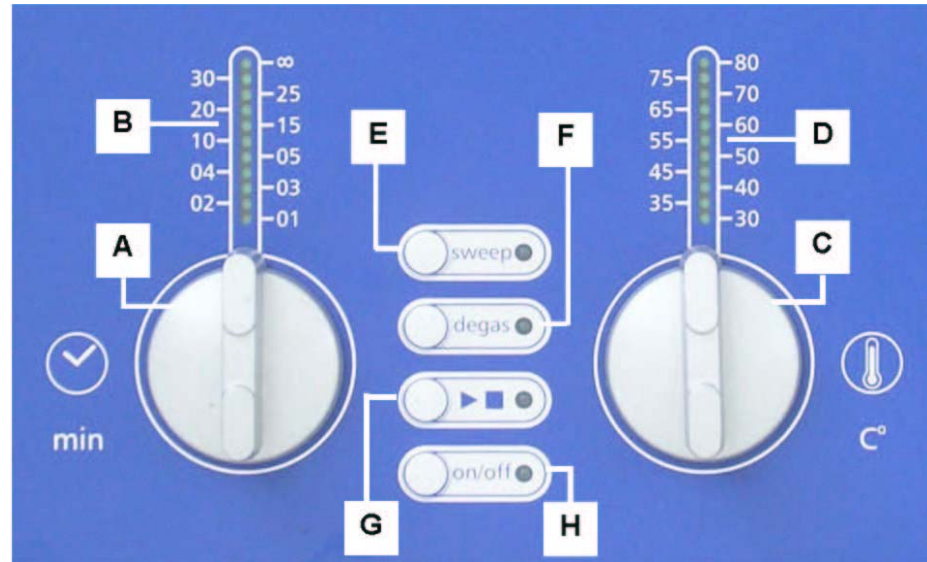


Fig. 7.1 JOKE® Basic-Clean controls

- A **Rotary switch for cleaning time** adjustment options
Short operation: 1, 2, 3, 4, 5, 10, 15, 20, 25, 30 min. (with automatic switch-off)
Continuous setting ∞ for continuous operation. The device must be switched off manually in this case. For safety reasons however, the device switches off automatically after 12h of constant operation.
- B **LED display for cleaning time** for planned time and remaining time display.
(for Basic-Clean 80 H, only one LED to indicate operation)
- C **Rotary switch for temperature** for devices with heating.
Temperature selection range in 5°C increments from 30°C - 80°C
- D **LED temperature display** for devices with heating.
Display for the set-point and actual value of the liquid temperature. For Basic-Clean 80 H, only one LED to indicate operation.
- E **Sweep function button** for optimum sonic field distribution in the cleaning liquid. Sweep LED.
- F **Degas function button.** Degas for efficient degassing of the cleaning liquid.
- G **Ultrasonic operation button** and temperature-controlled ultrasonic operation
- H **On/off button to switch the device on and off**

7

Operation



Operation for the first time

Ambient conditions

Place the device on a firm, dry base.

IMPORTANT!

It is essential to prevent penetration of moisture on the underside of the device.

Permitted ambient temperature: 5 - 40° C.

Permitted relative humidity: 80 %

7

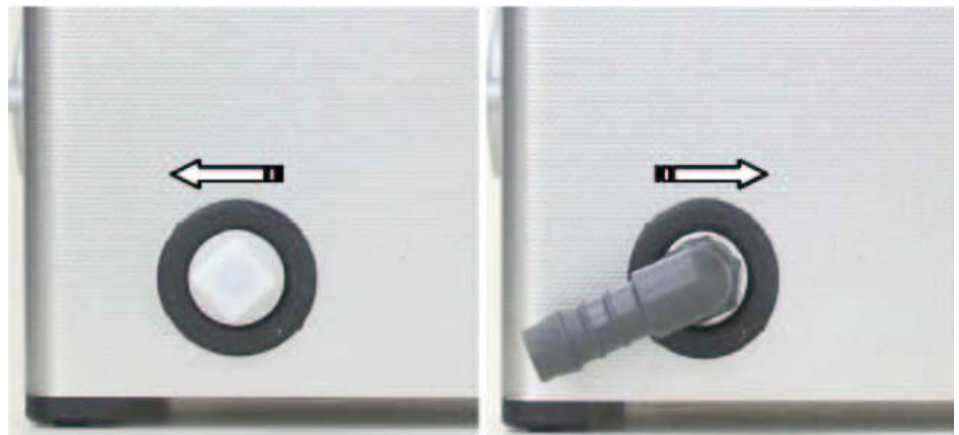
Operation



Preparation of liquid run-off (from Basic-Clean 275 H upwards)

The drainage orifice is closed with a plastic screw cap on delivery. In order to perform drainage for the first time, install the hose nozzle included in delivery on the tubing provided for the purpose:

1. Screw the plastic protective cap applied at the factory clockwise
2. Screw the hose nozzle included in delivery clockwise on to the internal thread of the drainage tube.
3. Rotate the hose nozzle into the desired direction of drainage. The plastic thread is self-sealing as soon as it cannot be screwed any further by hand. **NOTE:** rotating the hose nozzle in the opposite direction (anticlockwise) may result in a lack of seal of the thread.
4. It is only possible to establish a connection with a domestic drain. Use a common commercially available hose (1/2" diameter) for this purpose. Screw the hose on to the hose nozzle and secure the latter with the hose clamp included in delivery.



• Fig. 7.1 Drain with blanking cap and installed hose nozzle

7

Operation



Filling with cleaning liquid

1. Close the drain before filling the trough!
2. Fill the cleaning trough with sufficient suitable liquid before switching the device on

The optimum filling level is approx. 2/3 of the trough height (see filling level mark in the trough)

IMPORTANT!

It is essential to pay attention to the suitability for ultrasonic use, dosing and material compatibility when selecting the cleaning chemicals.

IMPORTANT!

Inflammable products are generally not allowed.

IMPORTANT!

Ultrasound increases the evaporation of the liquids and forms very fine mist, which could ignite at any time on sources of ignition.

7

Operation



Insertion of the components to be cleaned

1. Never place the components to be cleaned directly on the bottom of the ultrasound bath. This may result in damage to the device.
2. Place the components to be cleaned in the appropriate insertion basket (optional accessories).

Degassing the liquid

Freshly added liquid is saturated with air, which hampers the cleaning effect of the ultrasound. These microscopic inclusions of air can be removed from the liquid by ultrasonically treating the latter for several minutes before cleaning:

1. Degas newly added liquid for 5 – 10 minutes, depending on the device size. Operate the degas button in order to switch this function on and off.
2. The auto degas function switches the process off automatically after a period of 10 minutes.

INFORMATION!

Degas cannot be operated simultaneously with sweep.

7

Operation



Ultrasonic cleaning operation

Heating the cleaning liquid (for devices with heating)

Heat the cleaning liquid according to the degree of soiling and in order to assist the cleaning medium. In order to accelerate the heating process, we recommend using the optional device lid.

1. Switch the device on using the on/off button.
2. Set the desired cleaning temperature at the temperature rotary switch for temperature preselection.
3. The selected temperature is shown on the LED display. For the Basic-Clean 80 H devices, only the LED illuminates to indicate heating operation.
4. The heating is now in operation until the preselected temperature is reached. From Basic-Clean 175 H and above, the actual temperature already reached is shown on the LED display.
5. The heating switches off automatically as soon as the preselected temperature is reached.

Temperature-controlled cleaning (for devices with heating)

The Basic-Clean devices are equipped with a temperature-controlled cleaning function. The cleaning process is not initiated in this case until the desired bath temperature has been reached.

1. Switch the device on using the on/off button.
2. Set the desired temperature.
3. Set the desired ultrasonic cleaning time.
4. Press the start/stop button for more than 2 seconds.
The device now begins the heating process. During heat-up, the ultrasound is switched on at intervals in order to circulate the liquid.
5. When the preset temperature is reached, the cleaning process is started automatically.
6. Once the cleaning time is over, the ultrasound is switched off automatically. The heating continues at the set temperature.

Automatic circulation function during heat-up

Without circulation of the liquid, the heat generated rises to the surface by the influence of physics. A steep temperature gradient results in the cleaning bath. In order to achieve even heating of the cleaning liquid, occasional circulation, e.g. by means of ultrasound, is meaningful.

The JOKE® Basic-Clean devices are equipped with a switchable circulation function that ensures optimum mixing of the cleaning liquid as early as the heating phase. The ultrasound is activated for approx. 5 seconds at one-minute intervals in this case.

1. Switch the device on using the on/off button.
2. Set the desired cleaning time (planned time).
3. Set the desired temperature.
4. Press the start/stop button for more than 2 seconds to start the device.

Initiating the cleaning process manually

1. Switch the device on using the on/off button.
2. Select the desired duration of cleaning at the cleaning time rotary switch.
3. For **short operation** turn the rotary switch clockwise to the desired duration of cleaning.
4. Press the start/stop button to initiate ultrasonic operation. The device will now begin the ultrasonic cleaning.
5. For **constant** operation, turn the rotary switch clockwise to the position ∞ . In the constant operation position, there is no automatic switch-off. The ultrasound function must therefore be switched off by the user by pressing the start/stop button. Alternatively, the rotary switch can be turned back to the 0 position.

INFORMATION!

In order to avoid accidental constant operation, the JOKE® Basic-Clean devices switch off automatically after 12h of constant operation. Work can be resumed immediately after a new start.

Sweep function

The Basic-Clean devices are equipped with a switchable sweep function. Uniform ultrasonication of the cleaning bath is achieved in this case by constantly shifting the maximum zones of the sound pressure in the cleaning liquid. Particularly with bulky components to be cleaned, the sweep function may be a meaningful aid to efficient cleaning.

1. Press the sweep button to switch the function on and off.

INFORMATION!

Degas cannot be operated simultaneously with sweep.

7

Operation



IMPORTANT!

After cleaning

After cleaning, rinse the cleaning bath as required, e.g. under running water.

Drain the liquid from the device as soon as the former is soiled or the device has not been operated for a prolonged period. Certain residues and soiling may corrode the stainless steel trough.

General guidelines for the use of cleaning media

- The maximum cleaning effect is achieved with media specially suited to ultrasonic use, e.g. JOKE®-Clean.
- Renew used cleaning and disinfection liquids; do not refresh by subsequently adding more.
- Layers of dirt on the base of the trough or inserts (e.g. grinding and polishing media and other deposits) impair performance; consequently, drain the vibration trough and clean the latter and renew cleaning liquid.
- Cleaning and contact liquid in the ultrasonic vibration bath must not exceed a maximum operating temperature of 100°C.
- Distilled or deionised water is **unsuitable for ultrasonic cleaning directly in the vibration bath** (in insert and suspension troughs, distilled or deionised water is usable both as a cleaning liquid and starting bath for other cleaning media).
- Only use cleaning preparations tested and developed for ultrasonic cleaning, e.g. JOKE®-Clean.

CAUTION!

During work with corrosive cleaning media in inserts or a suspension trough, avoid projections in the contact liquid or on the stainless steel surfaces; if necessary, immediately renew the contact liquid, clean surfaces and rub dry.

No warranty is accepted for damage to the device and instruments caused by use of unsuitable cleaning or disinfection chemicals.

8

Care and maintenance



INFORMATION!

JOKE® ultrasonic cleaning devices are maintenance-free. In order to prolong the service life of the vibration trough and always achieve perfect cleaning results, regular cleaning and care of the device is necessary.

Observe the following points for cleaning:

- *Pull out the mains plug before any cleaning of the device.*
- *Do **not** spray down the devices or immerse the latter in water, but wet wipe the interior and exterior.*
- *Thoroughly rinse out and rub dry the stainless steel trough more frequently.*
- *Do not use any steel wool and avoid using scrapers.*
- *If after more prolonged use, tide-marks remain on the stainless steel surface of the vibration trough, these should be removed with a common commercially available stainless steel care product without any scouring additives.*
- *Remains of metal parts on the stainless steel surface in addition to rust particles from the water supply system may penetrate the passive protective surface of the stainless steel, “activate” the stainless steel and cause it to begin to rust. This foreign rust causes crevice corrosion on the stainless steel. Consequently, remove any metal parts remaining behind, such as screws and metal filings, etc. and remove small rust marks immediately using a soft cloth and common commercially available stainless steel care products.*

Note on repair

All the functions of every device are extensively checked before delivery. If malfunctions occur after prolonged operation, JOKE® Service should be contacted.

9

Telefax



To the
JOKE® service department
+49 (0) 22 04 / 8 39 - 86

Sender:

Company

Name

Street

Postcode/town or city

Please send us the spares drawing and parts
list for the following equipment:

as a printout (see above for address)

by fax, _____

as a pdf file to my email address _____

JOKE® Basic-Clean 80 H	Ord. no. 0 669 000	<input type="checkbox"/>
JOKE® Basic-Clean 175 H	Ord. no. 0 669 010	<input type="checkbox"/>
JOKE® Basic-Clean 275 H	Ord. no. 0 669 020	<input type="checkbox"/>
JOKE® Basic-Clean 425 H	Ord. no. 0 669 030	<input type="checkbox"/>
JOKE® Basic-Clean 575 H	Ord. no. 0 669 040	<input type="checkbox"/>
JOKE® Basic-Clean 690 H	Ord. no. 0 669 050	<input type="checkbox"/>
JOKE® Basic-Clean 940 H	Ord. no. 0 669 060	<input type="checkbox"/>
JOKE® Basic-Clean 950 H	Ord. no. 0 669 070	<input type="checkbox"/>
JOKE® Basic-Clean 1275 H	Ord. no. 0 669 080	<input type="checkbox"/>
JOKE® Basic-Clean 1800 H	Ord. no. 0 669 090	<input type="checkbox"/>
JOKE® Basic-Clean 2800 H	Ord. no. 0 669 100	<input type="checkbox"/>
JOKE® Basic-Clean 4500 H	Ord. no. 0 669 110	<input type="checkbox"/>
JOKE® Basic-Clean 9000 H	Ord. no. 0 669 120	<input type="checkbox"/>

Date

Signature



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Änderungen
aufgrund technischen
Fortschrittes vorbehalten

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