

High-power ultrasound for dental practice and laboratory



Simultaneous disinfection and cleaning
of dental instruments

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BANDELIN – The Company profile

BANDELIN electronic, a family-owned mid-sized company, is located in the capital of Germany – Berlin. Development and manufacture of ultrasonic devices and disinfection and cleaning agents are carried out in Berlin. A wide vertical range of manufacture, modern production lines and a motivated staff guarantee a high quality of the products. The customers can buy everything from one-hand. Ultrasonic devices are in use in nearly all branches like industry, maintenance, service, medical, pharmaceutical and dental fields as well as laboratories.

Development and manufacture of high-power ultrasonic units began already in 1955. The product range was enlarged in the middle of the eighties caused by increased sales. Adjustable and power-constant HF-generators were launched in 1992.

The brand names SONOREX, SONOPULS and SONOMIC are equated with ultrasound from experts. The most important product groups are:

- SONOREX – Ultrasonic baths and reactors
- SONOPULS – Ultrasonic homogenisers
- SONOMIC – Ultrasonic bath for rinsable keyhole surgery instruments and standard instruments
- TRISON – Ultrasonic bath for robotic instruments, rinsable keyhole surgery instruments and standard instruments
- STAMMOPUR – Disinfection and cleaning agents

BANDELIN electronic is the leader in development of new ultrasonic devices and opening up new application areas. In the past about 27 patterns / utility patents and 34 brand names were applied for. The company supports several committees in compiling of norms and guidelines. BANDELIN is the only complete-provider of ultrasound equipment as well as disinfection and cleaning agents with approvals and certifications in accordance with EN ISO 9001 and EN ISO 13485 for medical products.

All products are CE marked.



Ultrasonic baths for disinfection and cleaning of dental instruments



Fast cleaning results with ultrasound The Contamination is detached from the instruments after a few seconds



Start

3 seconds

5 seconds

8 seconds

10 seconds

Dental forceps with blood residues sonicated in an ultrasonic bath SONOREX DIGITEC DT 102 H with STAMMOPUR R.

Advantages of ultrasonic cleaning

- Fast instrument circulation.
- Disinfection time can be reduced to 5 minutes.
- Gentle intensive cleaning.
- Rapid cleaning of places difficult to reach such as cavities, holes etc. without provoking mechanical damage.
- Economical use of resources as water, chemicals and electricity.

Recommended liquids

- Only water with appropriate additives do disinfect and clean properly.
- The disinfection and cleaning agents STAMMOPUR have been especially developed for the application in ultrasonic baths.
- Microbiological expertises are available for the time reduction of the disinfection process.

When is a heater recommended

Ultrasonic baths without heater:

- For disinfection and simultaneous cleaning after dry deposit.
- Disinfection solutions may not be warmed up as the protein starts to coagulate at a temperature of 40 °C (104 °F).

Ultrasonic baths with heater:

- For cleaning after wet deposit or for basic cleaning.
- Contaminations like fats and waxes are removed faster.

What kind of accessories should be used

- Parts to be cleaned must not be placed on the tank bottom.
- Instruments are not to be stapled and baskets are not to be overloaded.
- Instruments like forceps and scissors must be opened completely or detached, if necessary.
- Instruments must be covered completely with liquid.

Digital or analogue? Your Choice!

Digital high-power ultrasonic baths



Analogue high-power ultrasonic baths



	SONOREX DIGITEC DT	SONOREX SUPER RK
Capacity (l)	0.9 – 5.5	0.9 – 5.5
Sweep, SweepTec	✓	✓
Fast degassing DEGAS	✓	–
Timer (min)	1, 2, 3, 4, 5, 10, 15, 30, ∞	1 – 15, ∞
Safety shut-down	after 12 hours	–
Heating	optional, version "H"	optional, version "H"
Degree of protection	IP 33 – splash-proof	IP 32 – drip-proof



SONOREX DIGITEC DT 102 H The most powerful 3-litres ultrasonic bath.

▪ 50 % more ultrasound ▪ hard chromium plated oscillating tank ▪ 3 years long-term warranty ▪

Hygienic

– the flat front allows optimal disinfection and cleaning of the surface – no space for hidden germ accumulation.

Easy to clean

splash-proof stainless steel housing

Strong cleaning power

by 50 % more ultrasound.

On-/ off function

Temperature display

with excess temperature signal.



Filling mark

for safe dosage

Hard chromium plated oscillating tank

Drain

one-piece drain, welded with ball valve

DEGAS funktion:

ON / OFF ultrasound

Programming

– saves the last setting time after switching off.

SONOREX DIGITEC


Digital ultrasonic baths



Front to rear: DT 31 H, DT 100 H, DT 102 H and DT 255 H

Product features:

- Stainless steel oscillating tank with high-grade PZT high-performance ultrasonic systems, ultrasound frequency 35 kHz
- **Digital timer** for 1, 2, 3, 4, 5, 10, 15, 30 min and continuous operation
- Filling level mark for safe filling
- Compact, easy to clean stainless steel housing
- Rubber feet for safe positioning
- As of type DT 102 H, drain outlet with ball valve for easy discharge of bath liquid
- Depending on type, comes with heating and handles

Type	Interior dimensions L x W x D (mm)	Capacity (l)	Code No.	Exterior dimensions L x W x H (mm)	Ultrasonic peak output (W)	Ultrasonic nominal output (W)	Heating power (W)	Features
DT 31	190 x 85 x 60	0.9	3200	205 x 100 x 180	160	40	–	–
DT 31 H	190 x 85 x 60	0.9	3220	205 x 100 x 180	160	40	70	with heating
DT 100	240 x 140 x 100	3.0	3210	260 x 160 x 250	320	80	–	–
DT 100 H	240 x 140 x 100	3.0	3230	260 x 160 x 250	320	80	140	with heating
 DT 102 H	240 x 140 x 100	3.0	3235	260 x 160 x 250	480	120	140	with heating, drain with ball valve G 1/4, handles
DT 255	300 x 150 x 150	5.5	3215	325 x 175 x 295	640	160	–	drain with ball valve G 1/4, handles
DT 255 H	300 x 150 x 150	5.5	3240	325 x 175 x 295	640	160	280	with heating, drain with ball valve G 1/4, handles

SONOREX SUPER

Analogue ultrasonic baths



Front to rear: RK 31 H, RK 100 H, RK 102 H and RK 255 H

Product features:

- Stainless steel oscillating tank with high-grade PZT high-performance ultrasonic systems, ultrasound frequency 35 kHz
- **Analogue timer** for 1 – 15 min and continuous operation
- Filling level mark for safe filling
- Compact, easy to clean stainless steel housing
- Rubber feet for safe positioning
- As of type RK 102 H, drain outlet with ball valve for easy discharge of bath liquid
- Depending on type, comes with heating and handles

Type	Interior dimensions L x W x D (mm)	Capacity (l)	Code No.	Exterior dimensions L x W x H (mm)	Ultrasonic peak output (W)	Ultrasonic nominal output (W)	Heating power (W)	Features
RK 31	190 x 85 x 60	0.9	329	205 x 100 x 180	160	40	–	–
RK 31 H	190 x 85 x 60	0.9	044	205 x 100 x 180	160	40	70	with heating 65 °C fixed setting
RK 100	240 x 140 x 100	3.0	301	260 x 160 x 250	320	80	–	–
RK 100 H	240 x 140 x 100	3.0	312	260 x 160 x 250	320	80	140	with heating
RK 102 H	240 x 140 x 100	3.0	303	260 x 160 x 250	480	120	140	with heating, drain with ball valve G 1/4, handles
RK 255	300 x 150 x 150	5.5	3066	325 x 175 x 295	640	160	–	drain with ball valve G 1/4, handles
RK 255 H	300 x 150 x 150	5.5	316	325 x 175 x 295	640	160	280	with heating, drain with ball valve G 1/4, handles

SONOREX

Cleaning in cassettes



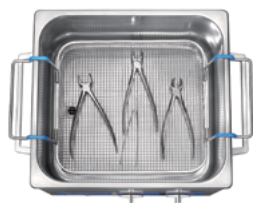
Or another application? Everything is possible!

DT 514 H (left) and RK 514 H (right)



Cleaning of instruments, loaded in cassettes, in the cassette holder KAH 14.1 and using TICKOMED 1

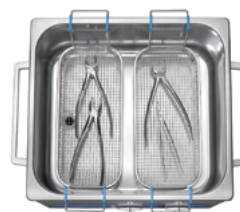
- up to 2 × 1/1 DIN cassettes, for surgery.
- up to 4 × 1/2 DIN cassettes, for prophylaxis.
- up to 8 × 1/4 DIN cassettes, for diagnostics and prophylaxis.



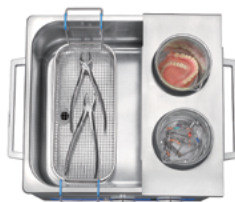
Disinfection and cleaning of instruments placed in the insert basket K 14 with STAMMOPUR DR 8.



Disinfection and cleaning of burs in insert beaker SD 06 to be placed into positioning lid DE 255 with STAMMOPUR DB and cement removal of dental prostheses with STAMMOPUR Z.



Disinfection and cleaning of instruments in 2 insert baskets K 5 C with STAMMOPUR DR 8 or just cleaning in TICKOMED 1 or STAMMOPUR RD 5.



Disinfection and cleaning of burs and other small instruments in one operation: With basket K 5 C and positioning lid DE 255 to fix 2 insert beakers SD 06.

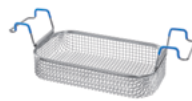



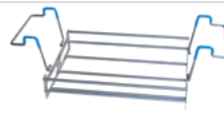


- Disinfection and cleaning of contaminated instruments placed in small basket K 5 C with STAMMOPUR DR 8.
- Disinfection and cleaning of burs in the insert beaker SD 06 with KD 0 and using STAMMOPUR DB.
- Removing of dental cements from instruments in a second insert beaker SD 06 and using STAMMOPUR Z.

Type	DT 514 H	RK 514 H
Interior dimensions L × W × D (mm)	325 × 300 × 150	
Capacity (l)	13.5	
Code No.	3211	277
Exterior dimensions L × W × H (mm)	355 × 325 × 305	
Ultrasonic peak output (W)	860	
Ultrasonic nominal output (W)	215	
Heating power (W)	600	
Features	with heating, drain with ball valve G ½, handles	

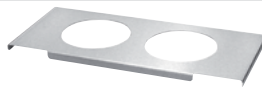



SONOREX Accessories

Appropriate accessories facilitate ultrasonic application and simultaneously protect oscillating tank and parts to be cleaned.

Objects to be cleaned or vessels must not be placed on the bottom of the ultrasonic tank!

Accessories	Material	Function	
Insert basket K	Stainless steel	For direct cleaning of instruments (probes, pressers, syringes) in the oscillating tank. Optimum permeability of ultrasound.	 K 3 C
Lid D	Stainless steel	To cover the oscillating tank. Protects the bath fluid from external contamination. Condensation water is discharged into the tank. Recommended for TRBA 250.	 D 100
Insert basket K	Plastic	For cleaning of sensitive surfaces. The basket is perforated.	 PK 2 C
Insert tub KW	Plastic	For cleaning in aggressive liquids. With lid. Temperature resistant up to 60 °C.	 KW 3
Cassette holder KAH	Stainless steel	For simultaneous sonication of up to 2 cassettes (1/1 DIN).	 KAH 14.1
Rack for cleaning of impression trays LT	Stainless steel	With silicone spacer for safe fixing of up to 8 impression trays.	 LT 102
Foil test frame FT	Stainless steel	The foil test is a simple procedure to demonstrate the intensity and distribution of cavitation in an ultrasonic bath (see also page 12).	 FT 1

Accessories for indirect cleaning

Positioning lid DE	Stainless steel	For fixing the insert beakers.	 DE 255
Insert beakers EB, PD, SD	Stainless steel (EB) Plastic (PD) Glass (SD)	Indirect cleaning of small parts in aggressive liquids or solvents.	 EB 05 PD 06 SD 06
Insert baskets KD, PD	Stainless steel (KD) Plastic (PD)	For insertion into the insert beakers. For very small parts, e.g. burs and very sensitive surfaces.	 KD 0 PD 04
Lid DD	Plastic	For closing of insert beakers SD 06, PD 06 and EB 05. Minimum order 10 pcs..	 DD 06

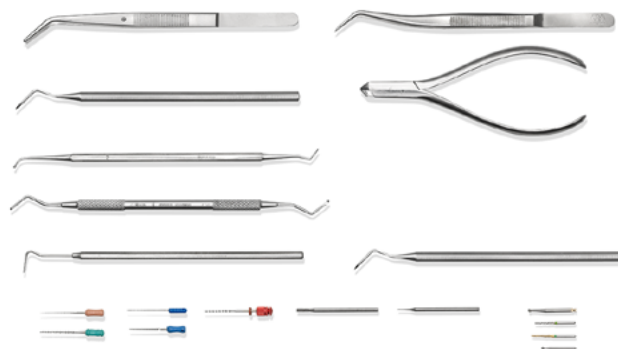


	RK 100 / H DT 100 / H RK 102 H DT 102 H			RK 255 / H DT 255 / H			RK 514 / H DT 514 / H								
suitable for	RK 31 / H DT 31 / H			RK 255 / H DT 255 / H			RK 514 / H DT 514 / H								
Insert basket L x W x H (mm) Code No.	K 08 170 x 65 x 50 209			K 3 C 200 x 110 x 40 3025			K 5 C 260 x 110 x 40 3027			K 14 275 x 245 x 50 354			K 5 C (2 pcs.) 260 x 110 x 40 302		
Lid Code No.	D 08 218			D 100 3003			D 255 3007			D 514 3010					
Insert basket L x W x H (mm) Code No.	-			PK 2 C 187 x 90 x 56 3082			K 5 P 254 x 96 x 130 113			-					
Insert tub L x W x H (mm) Code No.	-			KW 3 195 x 115 x 88 715			KW 5 254 x 96 x 130 240			KW 14 280 x 215 x 145 613					
Cassette holder L x W (mm) Code No.	-			-			-			KAH 14.1 305 x 208 x 52 7501					
Rack for cleaning of impression trays Code No.	-			LT 102 371			-			-					
Foil test frame Code No.	FT 1 3190			FT 4 3074			FT 4 3074			FT 14 3084					
Positioning lid Code No.	DE 08 278			DE 100 3017			DE 255 3028			DE 255 (2 pcs.) 3028			DE 514 3039		
Insert beakers Capacity (ml) Code No.	SD 04 400 168	KB 04 400 3000	SD 05 600 575	SD 06 600 330	PD 06 600 299	EB 05 600 350	SD 06 600 330	PD 06 600 299	EB 05 600 350	SD 06 600 330	PD 06 600 299	EB 05 600 350			
Insert baskets Code No.	PD 4 126			KD 0 370		PD 4 126	KD 0 370		PD 4 126	KD 0 370		PD 4 126			
Lid Code No.	-			DD 06 350			DD 06 350			DD 06 350					

Recommendations for use

BANDELIN ultrasonic baths enable a fast and thorough disinfection and cleaning of dental instruments, using the right accessories and agents made especially for use with ultrasonic baths.

Ultrasound intensifies the disinfecting effect and removes impurities from the deepest pores. Even hard-to-access spots, surfaces, corners and openings can be reached by the ultrasound ("electronic brushing"). It is important to consider that all cleaning objects must be thoroughly rinsed under running water after use in the ultrasonic bath.



Objective	Objects to be cleaned	Agent	Instructions for use
Simultaneous disinfection and cleaning	Metal instruments e.g. forceps, matrices, cofferdam clamps, root canal instruments (with anodised handle), syringes, glass parts e.g. dappen dishes with/without lid, petri dishes, prostheses dishes, bur boxes	STAMMOPUR DR 8	Place in the stainless steel or plastic insert basket, hang the basket in the oscillating tank.
	Rotating instruments e.g. burs and cutters, root canal instruments (with plastic handle)	STAMMOPUR DB	Place in the insert basket and set the basket in the insert beaker. Place the positioning lid on top of the oscillating tank, hang the insert beaker into the positioning lid.
Cleaning	Instruments made of stainless steel, syringes, glass parts, prostheses (new manufacture) e.g. abutments, crowns, bars and bridges	STAMMOPUR RD 5	Place in the stainless steel or plastic insert basket, hang the basket in the oscillating tank.
	Instruments made of stainless steel in cassettes	STAMMOPUR RD 5	Cleaning is only possible in the SONOREX DIGITEC DT 514 H or SONOREX SUPER RK 514 H ultrasonic bath. Hang a maximum of 2 cassettes in the oscillating tank using the stainless steel KAH 14.1 cassette holder.
	Instruments made of light metals e.g. model analogs, root canal instruments	TICKOMED 1	Place in the stainless steel or plastic insert basket, hang the basket in the oscillating tank.
Removal of cement residues and tartar from dental prostheses	Instruments made of stainless steel, glass parts e.g. mixing glass plates and cement spatulas, prostheses (tartar) e.g. metal denture, orthodontic appliances and retainers	STAMMOPUR Z	Place objects in the plastic insert tub with the polluted side downwards and hang the tub in the oscillating tank, or place the positioning lid on top of the oscillating tank and hang the insert beaker in the positioning lid.
Removal of alginate deposits	Instruments made of stainless steel, glass parts	STAMMOPUR AG	Place instruments in the insert basket, hang the basket in the oscillating tank. Some alginates swell during sonication and form a gelatin-like mass that absorbs the ultrasound. They are pre-soaked by the sonication and can be removed with a strong water jet.
	Impression trays	STAMMOPUR AG	Slide them over the impression tray holder and hang in the oscillating tank. Some alginates swell during sonication and form a gelatin-like mass that absorbs the ultrasound. They are pre-soaked by the sonication and can be removed with a strong water jet.
Removal of dental plaster	Instruments made of stainless steel, glass parts, prostheses (new manufacture)	STAMMOPUR AG	Place in the stainless steel and hang the basket in the oscillating tank.

Disinfection and cleaning agents

Optimum cleaning results require the application of appropriate disinfection and cleaning agents. Many disinfection and cleaning agents contain substances that can attack the stainless steel oscillating tank.

STAMMOPUR and TICKOMED have been especially developed for ultrasonic application. All agents are environmentally friendly and biodegradable.



Agents	Description	Application with ultrasound (time)	Litres	Code No.
STAMMOPUR DR 8 – VAH-certified – Simultaneous instrument disinfection and intensive cleaning CE 0124	Disinfection and intensive cleaning of instruments after dry deposit. High blood dissolution, for instruments heavily contaminated with incrustations of blood and secretions. Short irradiation time. Solution applicable under strain for 3 sequent days. Very high material compatibility. Concentrate . Non-odiferous. Without aldehydes, chlorine, phenols. Bactericidal, tuberculocidal, yeasticidal, virucidal against Vaccinia, BVDV, Papova, Adeno, HBV, HCV, HIV, H5N1, mildly alkaline pH 9.4 at 1 %. Labelling in accordance with CLP. Signal word: danger, GHS05-GHS07-GHS08-GHS09 100 g contain: 9.9 g bis(3-aminopropyl)dodecylamine, 8.4 g didecylmethylpolyoxyethylammoniumpropionate, 5 - 10 % non-ionic tensides, 30 - 50 % solvents, complexing agents, pH-regulators, Expertises: Bacteria, fungi: Dr. F.-A. Pitten, Gießen 11/05, Prof. Dr. Werner, Schwerin 10/08; HBV/ HIV: Prof. Dr. Frösner, München 08/99; Time durability: Prof. Dr. Werner, Schwerin 10/99; Ultrasound time reduction: Dr. Färber, Gießen 08/02; Vaccinia, BVDV, H5N1: Prof. Dr. L. Döhner, Dr. D. Becher, Greifswald 08/06; Papova: Prof. Dr. L. Döhner, Dr. D. Becher, Greifswald 01/07. Adeno: Dr. M. Büttner, Dr. D. Becher, Greifswald 11/08.	2 %, – 5 min 1,5 %, – 10 min 1 %, – 15 min Papova with high protein burden: 2 %, – 10 min Adeno with high protein burden: 3 %, – 15 min Application with- out ultrasound: 1 %, – 60 min 2 %, – 30 min 3 %, – 15 min	2 5 25	972 974 936
STAMMOPUR RD 5 Intensive cleaner for instruments CE	Removes obstinate, encrusted contaminations like blood, secretions, sputum, grinding and polishing residues, fat, wax, tissue residues, filling materials from instruments, devices, dentures, crowns. Concentrate . High material compatibility, with corrosion protection. Not for light metals. Alkaline, pH 10.9 bei 1 %. Labelling in accordance with CLP. Signal word: danger, GHS05	3 %, 2 – 10 min	2 5 25	827 901 902
TICKOMED 1 Universal cleaner for instruments CE	Removes blood, secretions, sputum, grinding and polishing paste, fat, wax, tissue residues, filling materials, dentinal splinters from instruments, devices, dentures, burs. Concentrate . Very high material compatibility, with corrosion protection. Also for use on light metals. Applicable as contact liquid. Mildly alkaline, pH 9.0 at 1 %. Labelling in accordance with CLP. Signal word: danger, GHS05	3 %, 2 – 10 min	2 5 25	904 949 961
STAMMOPUR Z Cement remover and dentur cleaner CE	Removes dental cements (except some glasionomer cements), tartar, provisional filling materials, embedding materials, oxides and fluxes from instruments and dentures. Concentrate . For stainless steel, precious metals, plastics, ceramics. Not for use on light metals. Caution with damaged chrome-plated material. Application only in insert beakers (indirect sonication, contact liquid STAMMOPUR DR 8 or TICKOMED 1). Acid, pH 1.9 at 1 %. Labelling in accordance with CLP. Signal word: danger, GHS05	5 %, 2 – 10 min	2 5 25	822 928 929
STAMMOPUR AG Plaster and alginat remover CE	Removes plasters, alginates, impressing and embedding materials from impression trays, dental tools and accessories. Ready for use . Very high material compatibility. For all materials, also for light metals. Also applicable without ultrasound e.g.: plaster traps, vacuum mixing devices undiluted for 15–120 min. Mildly alkaline, pH 8.0 Labelling in accordance with CLP. Signal word: danger, GHS05	undiluted, 3 – 10 min	2 5 25	825 906 907
STAMMOPUR DB – VAH-certified – Bur disinfection and cleaning CE 0124	Simultaneous disinfection and cleaning of rotating dental instruments like burs, cutters and files. Ready for use . With corrosion protection. High material compatibility. Caution with light metals. Not for alkali- and alcohol-sensitive materials. Application only in insert beakers (indirect sonication, contact liquid STAMMOPUR DR 8 or TICKOMED 1). Active against bacteria (incl. Tb.-B.), mycobactericide, fungi, viruses (according to EN 14476 with high protein burden). Alkaline, pH 13.0. Labelling in accordance with CLP. Signal word: attention, GHS02-GHS07 100 g contain: 30 g 2-Propanol, 0,1 g didecylidimethylammoniumchloride, sodium hydroxide, inhibitors, inorganic salts. Expertises: Bacteria, fungi: Prof. Dr. Wille, 06/04 Gießen; Dipl. Biol. T. Koburger, 07/11 and 12/16 Greifswald; PD Dr. med. F. A. Pitten, Gießen 09/11; Viruses according to EN 14476: Dr. D. Becher, 12/16 Greifswald; Ultrasound time reduction: Prof. Dr. Hartmann, 03/94 Berlin.	undiluted, 5 min	2 5 25	821 984 933

Practical work aids

The foil test – Testing of ultrasonic baths

A foil test (Investigations on test procedures for ultrasonic cleaners, IEC/TR 60886: 1987-03) is recommended for testing ultrasonic baths. It is to be conducted upon initial startup, and at regular intervals thereafter (e.g. every 3 months). The frequency of testing is the responsibility of the user.

The foil test is a simple procedure to demonstrate the intensity and distribution of cavitation in an ultrasonic bath. To do so, aluminium foil is stretched over a foil test frame. It is perforated or destroyed to a certain degree by cavitation, depending on the duration. For purposes of reproducibility, it is important that the test conditions remain constant:

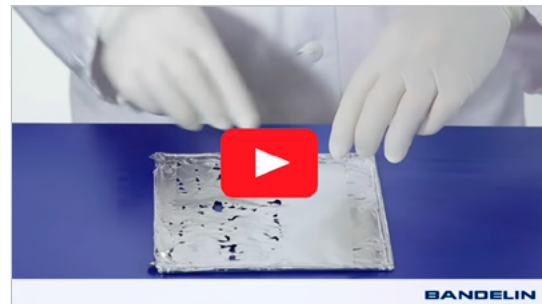
- Fill level in the oscillating tank (2/3)
- Temperature of tank contents
- Degassing time, if needed (degassing 5 to 30 min. before the test, depending on the tank contents)
- Frame positioning
- Foil properties (thickness, surface)
- Sonication time
- Concentration and type of ultrasound preparation

Foils can be archived in a suitable way (scanning, photos, etc.) This allows the foils to be compared at any time. The perforated areas of all foils should have approx. the same dimensions and distribution – the results are never identical.

A process validation, e.g. for the treatment of medical products, can only be achieved by conducting regular foil tests.

To execute the foil test, different foil test frames FT can be ordered from the manufacturer (subject to charge, see page 9). The foil test frames are suitable for a wide range of tank dimensions.

Aluminium household foil is also required to conduct the test and is not included in the delivery.



http://bandelin.com/foil_test/

The dosing of disinfection and cleaning agents

BANDELIN Dosing table for SONOREX ultrasonic cleaners						
SONOREX unit	Filling volume in liter	1 %	2 %	3 %	5 %	10 %
SONOREX 100	6,0	60 ml	120 ml	180 ml	300 ml	600 ml
SONOREX 150	12,0	120 ml	240 ml	360 ml	600 ml	1200 ml
SONOREX 200	18,0	180 ml	360 ml	540 ml	900 ml	1800 ml
SONOREX 300	27,0	270 ml	540 ml	810 ml	1350 ml	2700 ml
SONOREX 400	36,0	360 ml	720 ml	1080 ml	1800 ml	3600 ml
SONOREX 500	45,0	450 ml	900 ml	1350 ml	2250 ml	4500 ml
SONOREX 600	54,0	540 ml	1080 ml	1620 ml	2700 ml	5400 ml
SONOREX 700	63,0	630 ml	1260 ml	1890 ml	3150 ml	6300 ml
SONOREX 800	72,0	720 ml	1440 ml	2160 ml	3600 ml	7200 ml
SONOREX 900	81,0	810 ml	1620 ml	2430 ml	4050 ml	8100 ml
SONOREX 1000	90,0	900 ml	1800 ml	2700 ml	4500 ml	9000 ml
SONOREX 1200	108,0	1080 ml	2160 ml	3240 ml	5400 ml	10800 ml
SONOREX 1500	135,0	1350 ml	2700 ml	4050 ml	6750 ml	13500 ml
SONOREX 2000	180,0	1800 ml	3600 ml	5400 ml	9000 ml	18000 ml
SONOREX 3000	270,0	2700 ml	5400 ml	8100 ml	13500 ml	27000 ml
SONOREX 4000	360,0	3600 ml	7200 ml	10800 ml	18000 ml	36000 ml
SONOREX 5000	450,0	4500 ml	9000 ml	13500 ml	22500 ml	45000 ml
SONOREX 6000	540,0	5400 ml	10800 ml	16200 ml	27000 ml	54000 ml
SONOREX 7000	630,0	6300 ml	12600 ml	18900 ml	31500 ml	63000 ml
SONOREX 8000	720,0	7200 ml	14400 ml	21600 ml	36000 ml	72000 ml
SONOREX 9000	810,0	8100 ml	16200 ml	24300 ml	40500 ml	81000 ml
SONOREX 10000	900,0	9000 ml	18000 ml	27000 ml	45000 ml	90000 ml

The complement to hygiene plan

Hygieneplan - Ergänzung Instrumentenaufbereitung* im Ultraschallbad					Dental
Was	Wie	Womit	Wann	Wer	
Instrument, das aufzubereit werden soll	Art der Aufbereitung	Präparat	Zeitpunkt	Verantwortliche Person	
Allgemeines Instrumentarium	Gleichzeitige Desinfektion und Intervall-Reinigung	STAMMOPOP DR 8 (100% zertifiziert) im Ultraschallbad 5 min - 2 x für alle Materialien geeignet	nach Trockenablage oder unmittelbar nach Benutzung	Verantwortliche Person	
	Entfernung von Schleif- und Polierpasten, Wachsen, Sekreten, Blut, Gewebepartien, Spatum, Füllmaterialien	STAMMOPOP RD 5 im Ultraschallbad 2 - 10 min - 3 x nicht für Lackmaterialien TICKOMED 1 im Ultraschallbad 2 - 10 min - 3 x auch für Lackmaterialien			
Bohrer, rotierende Kleininstrumente	Gleichzeitige Desinfektion und Intervall-Reinigung	STAMMOPOP DR 8 (100% zertifiziert) mit Ultraschallbad 5 min unverändert			
Wurzkanalinstrumente	Entfernung von Dentinpräparaten und Füllmaterialien	TICKOMED 1 im Ultraschallbad 2 - 10 min - 3 x			
Abformlöffel, Viskumetri, Dentalwerkzeuge	Entfernung von Alginate und Dentinpräparaten	STAMMOPOP IG im Ultraschallbad 5 min unverändert	nach Benutzung		
Zahnersatz, Kronen	Entfernung von Zementen, Zahnpasten, Belägen, temporären Füllungen	STAMMOPOP RD 5 im Ultraschallbad 2 - 10 min - 3 x STAMMOPOP Z im Ultraschallbad 2 - 10 min - 5 x nur als Ersatzpräparat verwenden	nach Bedarf		

For optimum cleaning results in the ultrasonic bath, specially formulated disinfection agents and detergents are required alongside ultrasound performance, temperature and time.

To facilitate dosing, we provide a dosing table available that is only suitable for Bandelin equipment. The dosing table is available online: dosingtable.bandelin.com

Made in Germany

**BANDELIN electronic
GmbH & Co. KG
Heinrichstraße 3 – 4
12207 Berlin
DEUTSCHLAND
☎ +49 30 76880-0
☎ +49 30 7734699
info@bandelin.com**

**Zertifiziert nach
EN ISO 9001
EN ISO 13485**



We advice you personally!
Feel free to consult our experts:

+49 30 76880-0

www.bandelin.com

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7612 GB/2017-02

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All units are CE marked. Subject to technical alterations without notice.

Illustrations exemplary, not true to scale.

Decoration products are not included in delivery.

The general terms and conditions apply.