

TICKOPUR • STAMMOPUR

Special Agents Ultrasonic Cleaning and Disinfection

Industry
Handicraft
Service
Laboratory

Medicine
Dentistry
Hygiene
Occupational safety and health
Respiratory protection



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Cleaning agents for ultrasonic cleaning

Optimum results with the cleaning in **ultrasonic baths** require the application of **appropriate cleaning agents**. These must especially be adjusted for the “ultrasonic method”.

The agents have to **remove the soiling thoroughly** and to be at the same time **gentle to the material of the parts to be cleaned** and to the ultrasonic components (oscillating tub, immersible transducer etc.).

The complex modern range of products TICKOPUR and STAMMOPUR provides **optimum agents for every purpose**. This protects nature and saves money while achieving optimum cleaning performance.

Many industrial and household cleaners are not suitable for the ultrasonic cleaning. They may contain aggressive compounds e.g. certain acids or chloride ions which can attack the stainless steel of the oscillating tub. Also they normally do not support the ultrasonic effect. With the use of water without any appropriate admixture an ultrasonic cleaning is not possible. Solvents like gasoline, alcohol, acetone, cold cleanser etc. must not be used in ultrasonic baths directly because of their flammability and explosion hazard.

The advantages of our agents for ultrasonic cleaning

- **Especially developed for ultrasound. The ultrasound improving features** ensure the maximum effectiveness of the chemical and physical components.
- **The right medium for every purpose - innovative and optimal**
- **Best cost-value ratio**
 - effective cleaning chemistry
 - fast re-availability of the goods to be cleaned
 - low labour utilisation
 - low disposal costs
 - low energy consumption
- **Watery cleaning agents, environmental friendly and cost saving, easy in handling and disposal.**



The solution from one source – competence for our customers

Historically the company **DR. H. STAMM** belongs to the affiliated company BANDELIN and develops and produces cleaning and disinfection agents for SONOREX ultrasound technology.

Combination of chemical and physical processes through:

- concerted formulation of solutions to specific problems
- intensive cooperation in research and development
- access to well-founded specialised know-how
- Customer consulting service for chemistry and ultrasonic technology

to the benefit of our customers

Universal cleaner

TICKOPUR R 33

Removes general soiling, drilling, grinding, polishing and lapping residues, oily and greasy residues, soot, ink etc.

from metal, glass, ceramics, plastics, rubber etc.

- highly concentrated
- with corrosion protection
- gentle cleaning
- caution with tin and zinc

main active agents: tensides
mildly alkaline, pH 9.9 at 1 %

application in the ultrasonic bath
1–5 % - 1–10 minutes

Neutral cleaner – gentle –

TICKOPUR R 30

Gently **removes** light drilling, grinding, polishing and lapping residues, dust, soot, oily and greasy residues

from metal, glass, ceramics, plastics, rubber etc.

- highly concentrated
- with corrosion protection
- gentle cleaning

main active agents: tensides
neutral, pH 7 at 1 %

application in the ultrasonic bath
1–5 % - 1–10 minutes

Special cleaner with ammonia

TICKOPUR RW 77

Removes resinous residues, soot, fat, oil, wax, pigments, coloured fog, silicon oil, flux, oxides of non-ferrous metals

from metal, glass, ceramics, plastics, rubber etc.

- concentrate
- without phosphate
- gentle cleaning
- caution with light metals

main active agents: tensides, contains ammonia
mildly alkaline, pH 9.9 at 1 %

application in the ultrasonic bath
5 % - 1–10 minutes

What does “demulsifying cleaner” mean?

Demulsifying or fast separating cleaners are applied in the field of oil removing and cleaning of highly oil contaminated and fat containing objects.

After detaching the oil from the material's surface - other than with emulsifying cleaners - the oil is separated from the watery phase of the cleaning solution.

The oil and fat containing components float to the surface of the cleaning solution. From there, they can be removed easily and continuously be. A re-contamination of the cleaned parts while taken out of the ultrasonic bath is thus avoided. A further advantage is the prolongation of the lifetime of the cleaning solution because its components are bound only to a minor degree so that they are again available for further cleaning.

Please note that the choice of soiling and material in the descriptions are only examples.

demulsifying cleaners

Special cleaner – tenside free –

TICKOPUR R 36

Removes general residues, oil, fat, distillation residues, organic and inorganic residues

from steel, precious and light metals, ceramics, plastics, glass and optical glass etc.

- for analysis and laser technology
- demulsifying
- highly concentrated
- free from tensides, non foaming
- gentle cleaning
- caution with tin and zinc

main active agents: phosphate, silicate
mildly alkaline, pH 9.9 at 1 %

application in the ultrasonic bath
0.25–5 % - 1–10 minutes

Universal cleaner

TICKOPUR TR 7

Removes oil, fat, wax, pigments, flux, soldering paste, drilling, grinding, polishing and lapping residues

from steel, glass, ceramics, plastics, rubber etc.

- demulsifying
- highly concentrated
- with corrosion protection
- gentle cleaning

main active agents: tensides
mildly alkaline, pH 8.9 at 1 %

application in the ultrasonic bath
0.1–5 % - 1–10 minutes

Intensive cleaner

TICKOPUR R 60

Removes coking residues, resinous residues, soot, pigments, fat, oil, wax, silicon oil, coloured fog, drilling, grinding, polishing and lapping residues etc.

from steel, stainless steel, glass, ceramics, plastics, rubber.

- highly concentrated
- saponifying
- phosphate free
- not for light metals, tin and zinc

main active agents: sodium hydroxide
strongly alkaline, pH 12.8 at 1 %

application in the ultrasonic bath
2–20 % - 1–10 minutes

Special cleaner – intensive –

TICKOPUR R 27

Removes strong mineral residues like lime, silicate, phosphate, cements, as well as rust and coloured fog, metal oxides, grease and oil films etc.

from steel, stainless steel, glass, ceramics, plastics, rubber.

- highly concentrated
- with corrosion protection
- not for light and non-ferrous metals, tin and zinc

main active agents: phosphoric acid, tensides
acid, pH 1.9 at 1 %

application in the ultrasonic bath
5 % - 2–10 minutes

Difference between an emulsifying cleaner (TICKOPUR RW 77 - 5 % in water) and a demulsifying cleaner (TICKOPUR TR 7 - 5 % in water).

After adding 5 % hydraulic oil, sonicating for 5 minutes and 1 minute clearing time.

When using a demulsifying cleaner, the oil floating on the surface can easily be removed.



Special cleaner – gentle –

TICKOPUR TR 3

Removes mineral residues, drifting rust, fat, oil, wax, pigments, drilling, grinding, polishing and lapping residues etc.

from metal, glass, ceramics, plastics, rubber.

- concentrate
- with corrosion protection
- phosphate free
- gentle to material

main active agents: citric acid, tensides
mildly acid, pH 3.0 at 1 %

application in the ultrasonic bath
5 % - 1–10 minutes

demulsifying cleaners

Special cleaner – silicate free –

TICKOPUR TR 13

Removes resinous residues, coking residues, soot, oil, fat, wax, pigments, coloured fog, drilling, grinding, polishing and lapping residues etc.

from steel, stainless steel, glass, ceramics, plastics, rubber.

- demulsifying
- highly concentrated
- silicate free
- not for light metals, tin and zinc
- non-ferrous metals can be damaged

main active agents: tensides, alkali
alkaline, pH 11.9 at 1 %

application in the ultrasonic bath
0.1–10 % - 1–10 minutes

Special cleaner

TICKOPUR TR 2

Removes mineral residues, drifting rust, fat, oil, wax, pigments, drilling, grinding, polishing and lapping residues etc.

from metal, glass, ceramics, plastics, rubber.

- demulsifying
- highly concentrated
- with corrosion protection
- gentle to material

main active agents: tensides, acid
acid, pH 3.6 at 1 %

application in the ultrasonic bath
0.1–5 % - 1–10 minutes

Special cleaner for industry

TICKOPUR TR 14

Flux remover

Removes resinous flux, soldering paste, ionic and non-ionic residues, drilling, grinding, polishing and lapping residues, fingerprints, fat, oil etc.

from non-ferrous and light metals, steel, stainless steel, glass, ceramics, plastics, rubber, assembled and non-assembled printed circuit boards, soldering frames, electronic components, boards etc.

- concentrated
- gentle to material
- demulsifying
- tenside free, non-foaming
- phosphate free

main active agents: alkali, inhibitors
alkaline, pH 10.7 at 1 %

application in the ultrasonic bath
10 % - 30–180 seconds

TICKOPUR R 32

Special cleaner – non-chelating –

Removes distillation residues, organic and inorganic residues, oil and fat containing residues etc.

from metal, also black-finished metal, glass, ceramics, plastics, rubber etc.

• especially for galvanic application, laser and analytics

- highly concentrated
- without chelating agents
- emulsifying
- with corrosion protection
- gentle to material
- prepare with demineralised water

main active agents: tensides
mildly alkaline, pH 9.9 at 1 %

application in the ultrasonic bath
0.25–5 % - 1–10 minutes

The choice of the appropriate cleaning agent

The choice of the appropriate cleaning agent basically depends on the following factors:

- material of the objects to be cleaned
- type of soiling
- volume of the adherent soiling

Before using strongly alkaline or strongly acid agents the application of mild, neutral or universal cleaning agents should be considered at first.

Some cleaning tasks can only be solved with special cleaning agents with especially designed recipes (e.g. non-chelating agents for laboratory and galvanic application, tenside free formulations for laser technology, optical industry and for application in high vacuum).



The Filtration of cleaning solution

Floating particles of dirt obstruct the ultrasonic action. Removing of these particles by filtration ensures the cleaning intensity, saves chemicals and prolongs the lifetime of the cleaning solution.



TICKOPUR J 80 U

Deoxidation

Deoxidises jewellery, articles of virtue, coins, precious metal parts, brass, copper etc.

- ready for use
- cyanide free
- gentle to material
- different materials have to be deoxidised separately
- caution with sensitive parts and artificial oxidations
- application only in inset beakers

main active agents: thiourea, acids
acid, pH 1.5

application in the ultrasonic bath
< 30 seconds

without ultrasound
< 3 minutes

TICKOPUR R 61

cleaner for injection nozzles

Removes soot-like residues, coke residues, greasy and oily residues, coloured fog and pigments

from steel, stainless steel, glass, ceramics, rubber.

- concentrated
- tenside free
- demulsifying
- not for light metals, tin, zinc
- gentle to material

main active agents: alkali, sodium hypochlorite
alkaline, pH 11.2 at 1 %

application in the ultrasonic bath
2–20 % - 1–10 minutes

Choice of agents for industry and laboratory

Two appropriate **TICKOPUR**-agents are named in the point of intersection of “contamination” and “material” (e.g. **R 33** stands for **TICKOPUR R 33**).

Soiling	Material												
		Steel	Stainless steel	Light metal	Non-ferrous metal	Tin, zinc	Precious metal	Glass	Laboratory glass	Ceramics	Rubber	Plastics	Acrylic glass
Fat		TR 13 R 60	TR 13 R 60	TR 7 TR 3	TR 7 TR 3	TR 7 R 30	TR 13 RW 77	TR 7 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33
Oil		TR 13 R 60	TR 13 R 60	TR 7 TR 3	TR 7 TR 3	TR 7 R 30	TR 13 RW 77	TR 7 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33
Silicon-Oil		TR 13 RW 77	TR 13 RW 77	TR 7 R 30	TR 7 RW 77	TR 7 R 30	TR 13 RW 77	TR 7 R 30	TR 13 R 30	TR 13 R 30	TR 13 R 30	TR 13 R 30	TR 13 R 30
Lubricants		TR 13 R 60	TR 13 R 60	TR 7 TR 3	TR 7 TR 3	TR 7 R 30	TR 13 RW 77	TR 7 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33
Resinous residues		TR 13 R 60	TR 13 R 60	TR 3 R 33	TR 3 R 33	TR 7 R 33	TR 13 R 60	TR 7 R 33	R 60 R 33	R 60 R 33	---	R 60 R 33	R 33 TR 13
Wax		TR 13 R 60	TR 13 R 60	TR 7 R 33	TR 7 R 33	TR 7 R 33	TR 13 R 60	TR 7 R 33	TR 13 R 60	TR 7 R 60	TR 13 R 33	TR 13 R 60	TR 13 R 33
Temper colours		R 27 TR 3	R 27 TR 3	---	TR 3 TR 2	TR 3 TR 2	R 27 TR 3	---	---	---	---	---	---
Lime		R 27 TR 3	R 27 TR 3	TR 3 TR 2	TR 3 TR 2	TR 3 TR 2	R 27 TR 3	TR 3 R 27	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3
Mineral residues		R 27 TR 3	R 27 TR 3	TR 3 TR 2	TR 3 TR 2	TR 3 TR 2	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3
Oxides		R 27 TR 3	R 27 TR 3	TR 3 TR 2	RW 77 J 80 U	TR 3 TR 2	J 80 U RW 77	TR 3 R 27	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3
Rust		R 27 TR 3	R 27 TR 3	TR 3 TR 2	TR 3 TR 2	TR 3 TR 2	R 27 TR 3	TR 3 R 27	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3	R 27 TR 3
Drilling, grinding, polishing a. lapping residues		TR 13 TR 3	TR 13 TR 3	R 33 TR 3	R 33 TR 3	R 33 TR 3	TR 13 RW 77	R 33 TR 3	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	R 33 TR 3
Coloured fog		TR 13 R 60	TR 13 R 60	R 33 TR 7	R 33 TR 7	R 33 TR 7	TR 13 R 60	R 33 TR 13	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33
Pigments		TR 13 R 33	TR 13 R 33	R 33 R 33	TR 3 R 33	R 33 R 30	TR 13 R 33	R 33 TR 13	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33
Ink		R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 30 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7
Flux		TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7
Soldering paste		TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7	TR 14 TR 7
Ash		R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	TR 13 R 33	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7	R 33 TR 7
Soot		TR 13 R 33	TR 13 R 33	R 33 R 30	R 33 R 30	R 33 R 30	TR 13 R 33	R 33 R 30	TR 13 R 33	TR 13 R 33	R 33 TR 13	R 33 TR 13	R 33 TR 13
Combustion residues		R 60 TR 13	R 60 TR 13	R 33 TR 3	RW 77 TR 3	R 33 TR 3	R 60 TR 13	R 33 TR 3	TR 13 R 33	TR 13 R 33	R 33 TR 3	R 33 TR 3	R 33 TR 3
Carbonisation residues		R 61 TR 13	R 61 TR 13	R 33 TR 3	R 33 TR 3	R 33 TR 3	R 61 TR 13	R 33 TR 3	TR 13 R 33	TR 13 R 33	---	---	---
Distillation residues		R 33 R 27	R 33 R 27	R 33 TR 3	R 33 TR 3	R 33 TR 3	R 33 R 27	R 33 TR 3	R 33 R 27	R 33 R 27	R 33 R 27	R 33 R 27	R 33 R 27
Organic residues		R 33 R 27	R 33 R 27	R 33 TR 3	R 33 TR 3	R 33 TR 3	R 33 R 27	R 33 R 30	R 33 R 27	R 33 R 27	R 33 R 27	R 33 R 27	R 33 R 27
Inorganic residues		TR 13 R 27	TR 13 R 27	R 33 TR 3	R 33 TR 3	R 33 TR 3	TR 13 R 27	R 33 TR 3	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33	TR 13 R 33

This table shall facilitate the choice of the suitable cleaning agent and only offers a choice for the best possible cleaning result. The recommendation does not relieve of the obligation to carefully carry out preliminary tests of sensitive materials regarding durability.

The right agent for your application

The examples given are only a small choice of applications with **TICKOPUR** and **STAMMOPUR** agents. You will find further information in the application-tables on page 7.

Let us advise you!

Industry and laboratory, handicraft and service	Recommended TICKOPUR or STAMMOPUR agent	Pages
Airbrush nozzles	R 33, TR 13	4, 5
Analyse sieves	R 33, TR 13	4, 5
Articles of virtue	R 33, RW 77, R 30, J 80 U	4, 6
Blinds	R 33	4
Burner parts	R 27; TR 13	5
Carburettor parts	R 33, TR 3, TR 13	4, 5
Ceramic parts	R 33, R 27, R 60	4, 5
Chains from chainsaws	R 33, TR 13	4, 5
Clocks and watches	RW 77, J 80 U	4, 6
Cogwheels	R 33, TR 13, TR 3	4, 5
Coins	RW 77, R 30, R 33, J 80 U	4, 6
Cuvettes (analysis)	R 36, R 30, R33	4
Developing racks	R 33, R 27	4, 5
Drawing dies	TR 13, TR 3, R 33	4, 5
Electronic components	TR 14, TR 7, RW 77	4, 6
Electroplating parts	R 32	6
Embouchures (wind instruments)	R 33	4
Engraving tools	R 33, R 30	4
Filter	R 33, TR 13, TR 2	4, 5
Filter, electrostatic	R 33	4
Fittings	R 27	5
Hearing aids, earphones	R 33, STAMMOPUR DR 8	4, 13
Injection nozzles (petrol, diesel)	R 61	6
Ink jet print heads	R 33	4
Jewellery	RW 77, R 30, J 80 U	4, 6
Knives	R 33, TR 13, TR 3	4, 5
Laboratory equipment (general)	R 33, R 27, R 60, R 30, TR 13	4, 5
Lamp coverings	R 33	4
Laser parts	R 36	4
Lenses, optical glass	R 30, R 33, R 36	4
Locks and cylinder locks	R 33, TR 13, TR 3	4, 5
Louvers (illumination)	R 33	4
Measuring tools	R 33, TR 13	4, 5
Microplates	R 33, TR 13	4, 5
Modelling parts	R 33, RW 77	4
Motorcar parts	R 33, TR 3, TR 13	4, 5
Oil filters	TR 13, TR 7	4, 5
Preforming stamps	R 33	4
Print heads	R 33	4
Printed circuit boards (assembled/non assembled)	TR 14, TR 7	4, 6
Printed circuit boards, service	RW 77	4
Records	R 33, R 36	4
Saw blades of circular saws	TR 13, R 33	4, 5
Soldering frames	TR 14, TR 7	4, 6
Spectacles, manufacturing	R 33; TR 3; TR 13	4, 5
Spectacles, service	R 33	4
Test sieves	R 33, TR 3, TR 13	4, 5
Tools / tool parts	R 33, TR 13, RW 77	4, 5
Turner and milling parts	R 33, TR 13, TR 3	4, 5
Vertical blinds (textile)	R 33, R 36	4
Water meters	R 27	5
Wire	R 33, TR 3, TR 13, R 27	4, 5
Woodworking tools	R 33, TR 13	4, 5

Occupational safety and hygiene	Recommended TICKOPUR or STAMMOPUR agent	Pages
Diving gears and regulators	TICKOPUR R 33, STAMMOPUR GR	9, 13
Piercing-Instruments (cleaning/disinfection)	STAMMOPUR DR 2	9
Protective goggles, accessory for occupational safety and health, tools	TICKOPUR R 33	9
Respirators and accessory	STAMMOPUR 24, TICKOPUR R 33, R 27	5, 9
Tattoo-needles and accessory (cleaning/disinfection)	STAMMOPUR DR 2	9

STAMMOPUR 24**Intensive cleaning and disinfection**

Cleans and disinfects respirators, work protection devices, instruments and laboratory devices

made of rubber, silicone, metal, plastics, porcelain, glass.

- concentrated
- rinseable without residues
- neutral scent
- without impairment of the lifetime of respirators
- very high material compatibility
- with corrosion protection
- without aldehydes, chlorine and phenols
- **solution applicable under strain for 3 days**
- active against bacteria (incl. Tb.-B.), fungi, viruses (HBV/HIV)

DGHM-certified: 1 % - 60 minutes
CE 0124 according MDD

main active agents: amines, propionates
mildly alkaline, pH 9.4 at 1 %

application in the ultrasonic bath
1 % - 15 minutes

DGHM-values, agents in 100 g, expertises, labelling see page 19

**TICKOPUR R 33****Universal cleaner in occupational safety and health**

Removes general soiling, soot, wax, oil and fat containing residues, dust, sweat, tattoo-colours

from heavily soiled respirators after fire fighting action, also from tools, small parts, diving gears, protective goggles, scissors, tattoo accessories and tattoo needles etc.

- highly concentrated
- emulsifying
- with corrosion protection
- gentle to material
- also suitable for wiping and immersing

The **regulations for disinfection** and sterilisation have to be observed after the cleaning process.

Disinfect work protection devices with **STAMMOPUR 24** (without ultrasound 1 % - 60 min)

main active agents: tensides
mildly alkaline, pH 9.9 at 1 %

application in the ultrasonic bath
3 % - 1–10 minutes

Disinfection and cleaning in occupational safety and health

Disinfection in occupational safety and health becomes more and more important. The health protection of customers and personnel as well as the high quality equipment require reliable and careful disinfection and cleaning. Our products meet these requirements in an optimal manner ensuring that occupational safety and health is solid through a balance between agent and ultrasound.

Product characteristics see page 10

STAMMOPUR DR 2**Disinfection and intensive cleaning**

Cleans and disinfects instruments and accessory in the field of **tattooing and piercing**.

- high blood dissolution
- thorough removal of incrustated secretions
- high cleaning performance
- fast removal of tattoo inks
- concentrated
- very high material compatibility
- with corrosion protection
- without aldehydes, chlorine and phenols
- active against bacteria (incl. Tb.-B.), fungi, viruses (HBV/HIV)

DGHM-certified: 3 % - 60 minutes
CE 0124 according MDD

main active agents: amines, quats
alkaline, pH 11.0 at 1 %

Application in the ultrasonic bath
5 % - 5 minutes

DGHM-values, agents in 100 g, expertises, labelling see page 19

Important information!**Looking for STAMMOPUR 23?**

In the context of constant product improvement we have further developed **STAMMOPUR 23**. We are now able to offer **STAMMOPUR 24** with essential improvements, e.g.

- increased cleaning effect
- very high material compatibility
- prolonged durability of the solution
- rinseable without residues, neutral scent.

Please ask for our **product comparison** and become convinced of the advantages of **STAMMOPUR 24**.

Lime and algae on work protection devices

To remove **obstinate mineral deposits from diving gears and accessory of work protection** after application in water, we recommend **STAMMOPUR GR**.
(page 13)

All agents are marked C according to Medical Device Directive (except for R 33, technical product)

- applicable
- conditionally applicable
- not applicable

Medicine				
STAMMOPUR DR 8	STAMMOSEPT	STAMMOPUR DR	STAMMOPUR R	STAMMOPUR GR

Dentistry						
STAMMOPUR DR 8	STAMMOPUR DB	STAMMOFORM D	TICKOMED 1	STAMMOPUR RD 5	STAMMOPUR AG	STAMMOPUR Z

Hygiene		
STAMMOPUR 24	TICKOPUR R 33	STAMMOPUR DR 2

Disinfection
DGHM*-certified
DGHM*-tested, as of 12.7.1991
bactericidal (incl. Tb.-B.)
Helicobacter pylori
fungicidal
virucidal (HBV/HIV)
virucidal (Polio, Adeno, Vakzinia, Papova)

●	-	-	-	-
-	●	●	-	-
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●	●	●	-	-
●	-	●	-	-
-	●	●	-	-

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●	-	●
●	-	●
-	-	-

Cleaning
Intensive cleaning
Pre-cleaning
Basic cleaning

●	●	-	●	-
●	●	○	-	-
-	-	-	-	●

●	●	●	●	●	●	●
●	●	-	-	-	-	-
-	-	-	-	-	-	●

●	●	●
●	-	●
-	-	-

Characteristics
without formaldehyde
without aldehydes
without phenols
without chlorine

●	●	●	●	●
●	●	-	●	●
●	●	●	●	●
●	●	●	●	●

●	●	●	●	●	●	●
●	●	●	●	●	●	●
●	●	●	●	-	●	●
●	●	●	●	●	●	●

●	●	●
●	●	●
●	●	●
●	●	●

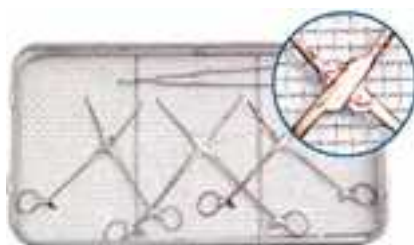
Material compatibility
steel, stainless steel, precious metal
light metal
plastic
acrylic glass
rubber

●	●	●	●	●
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●	●	●	●	●
●	●	●	●	●
●	●	●	●	●

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●	●	●	●	●	●	●
●	○	●	●	○	●	●
●	○	●	●	○	●	●

●	●	●
●	●	○
●	●	●
●	●	●
●	●	●

* = DGHM Deutsche Gesellschaft für Hygiene und Mikrobiologie (German Society for Hygiene and Microbiology)



prior to ultrasonic cleaning



after ultrasonic cleaning



Disinfection and cleaning with ultrasound in a single process

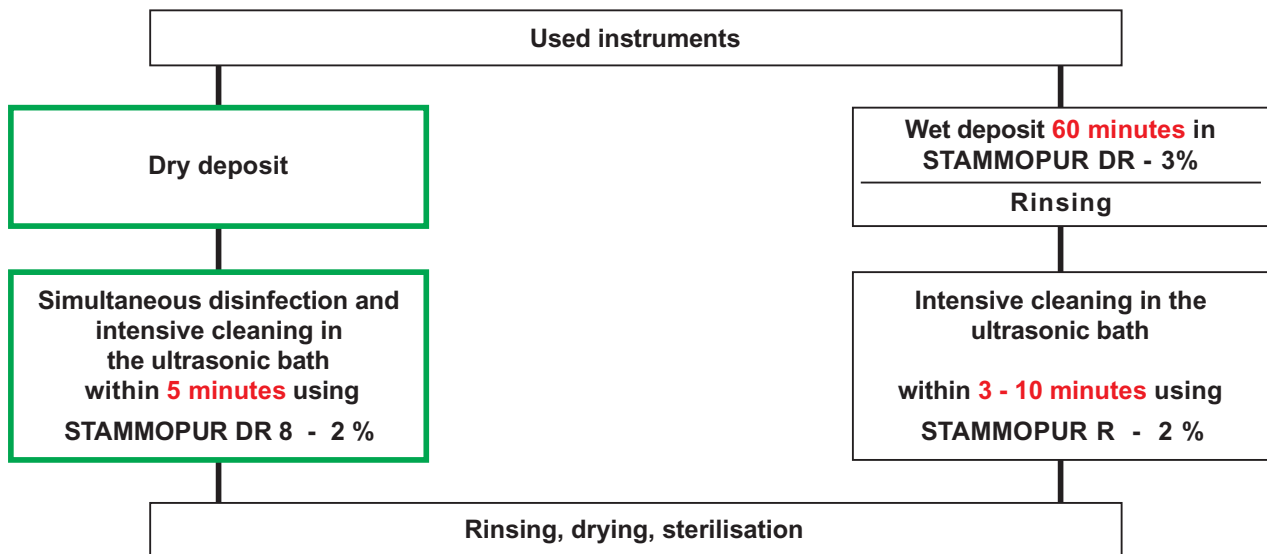


Fig.: Advantages in time of simultaneous disinfection and cleaning in the ultrasonic bath

Why does ultrasound shorten the time of disinfection?

Ultrasound causes cavitation in liquids. Simply speaking, cavitation is the creation of minuscule vacuum bubbles that immediately implode and cause micro-currents or “jet streams” which are literally able to blast particles off from firm surfaces.

Conglomerates of micro-organisms and secretions on used instruments are not only removed but are also disintegrated and broken down into their individual components. As a result, each separate germ component is quickly and effectively disinfected by the cleaning solution. Furthermore, the ultrasonic jet streams allow fresh disinfecting agents to continuously reach the germs to be inactivated.

Is every disinfectant suitable for ultrasonic applications?

Generally, ultrasound does not reduce the effect of conventional disinfectants. In order to take advantage of the considerably shorter exposure times possible with ultrasonic technology, it is necessary to use special disinfectants which act synergistically with ultrasound. This is not the case with all disinfectants.

The **STAMMOPUR** disinfectants and detergents contain specially selected and tested active and auxiliary ingredients for ultrasonic cleaning that provide optimum disinfecting of instruments while being gentle on the instruments.

External testing has verified the excellent disinfecting qualities of ultrasonic cleaning.

Disinfection and cleaning in a single process?

Another advantage of our disinfectant preparations is that they provide a specially balanced combination of intensive ultrasonic cleaning together with disinfection. Active cleaning substances and disinfecting agents are specially tested with ultrasound. Only certain sophisticated combinations of the active ingredients enable synergy effects of astounding efficiency.

Advantages for the user?

The small exposure times in the disinfectant solution effect increased protection for the objects being cleaned as well as faster availability of particularly high-quality instruments and accelerated instrument circulation.

Should disinfectant solutions be heated?

When disinfecting instruments, the disinfectant solutions should not be additionally heated.

At temperatures above 40 °C proteins begin to coagulate and exacerbate disinfecting and cleaning processes.

Unightly, stained instruments?

Who has not experienced this? Residues that are burned in by sterilisation as well as other stains, discolouring and rust encrustation. In these cases **basic cleaning with STAMMOPUR GR** produces relief. Even instruments that you thought were no longer useable can be returned to full service.

Basic cleaning with STAMMOPUR GR requires an insert insert plastic tub. STAMMOPUR R or DR 8 can be used as contact liquid in the oscillating tank.

Basic cleaning shall be performed at temperatures from 50 to 60 °C.

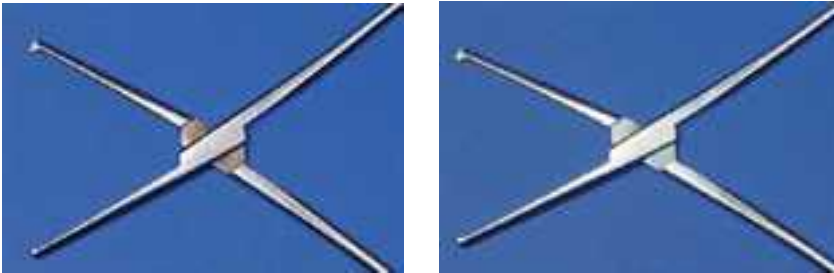


Fig.: Pliers before and after basic cleaning with STAMMOPUR GR.

The right agent for your application

Objects to be cleaned	Disinfection and cleaning with ultrasound	Wet deposit and final disinfection without ultrasound	Cleaning with ultrasound
Instruments	STAMMOPUR DR 8	STAMMOPUR DR	STAMMOPUR R
Endoscopic accessory	STAMMOPUR DR 8	STAMMOPUR DR	STAMMOPUR R
MIS-instruments	STAMMOPUR DR 8	STAMMOPUR DR	STAMMOPUR R
Thermosensitive instruments	STAMMOPUR DR 8 STAMMOSEPT	STAMMOPUR DR STAMMOSEPT	STAMMOPUR R
Implants	STAMMOPUR DR 8 STAMMOSEPT	STAMMOPUR DR STAMMOSEPT	STAMMOPUR R
Instruments (final disinfection)	—	STAMMOPUR DR	—
Instruments (basic cleaning)	—	—	STAMMOPUR GR

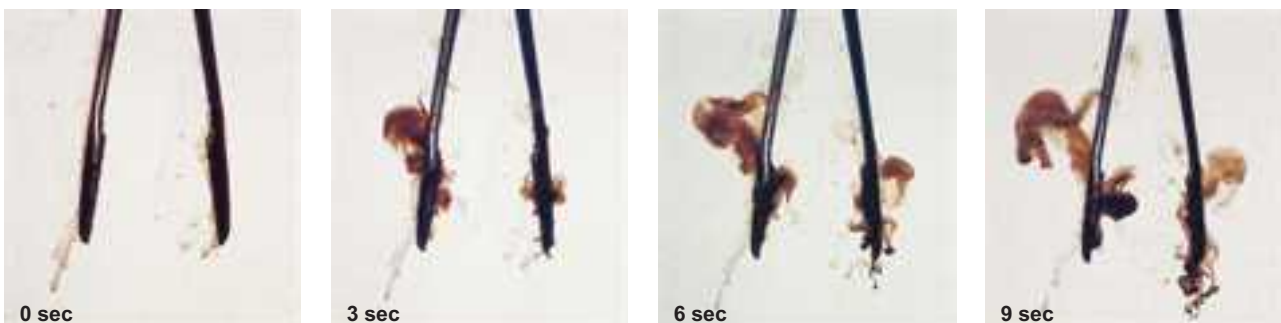


Fig.: Pliers with blood residues, sonication in the ultrasonic device SONOREX SUPER RK 1028 with STAMMOPUR DR 8

**Dosing table
for free**

Instrument disinfection and intensive cleaning

STAMMOPUR DR 8

Disinfects and cleans medical instruments like MIS-instruments, endoscopic instruments, devices etc.

- very high cleaning efficiency
- high blood dissolution
- thorough removal of incrustrated secretions
- concentrate
- neutral scent
- very high material compatibility, suitable for all materials
- with corrosion protection
- **solution applicable under strain for 3 days**
- active against bacteria (incl. Tb.-B., helicobacter pylori), fungi, viruses (HBV/HIV)

**DGHM-certified: 1 % - 60 minutes
CE 0124 according MDD**

main active agents: amines, propionates
mildly alkaline, pH 9.4 at 1 %

**application in the ultrasonic bath
2 % - 5 minutes**

1.5 % - 10 minutes / 1 % - 15 minutes

DGHM-values, agents in 100 g, expertises, labelling
see page 19

STAMMOSEPT

Disinfects and cleans general instruments and thermo-sensitive medical instruments and devices etc.

- high cleaning efficiency
- high blood dissolution
- thorough removal of incrustrated secretions
- due to the **complex virucidal efficacy** also suitable for final disinfection
- powder
- very high material compatibility, suitable for all materials
- active against bacteria (incl. Tb.-B.), fungi, viruses (Polio, Adeno, Vakzinia, Papova)

**tested according DGHM-Guidelines
(12.07.1991): 5 % - 60 minutes
CE 0124 according MDD**

main active agents: active oxygen
mildly alkaline, pH 8.9 at 1 %

**application in the ultrasonic bath
5 % - 15 minutes**

2 % - 60 minutes

DGHM-values, agents in 100 g, expertises, labelling
see page 19

**Please ask for
free dosing table
Also see page 18**

Wet deposit and final disinfection

STAMMOPUR DR

Disinfects and cleans instruments and devices in medicine and occupational medicine etc.

- disinfection with pre-cleaning
- due to the **complex virucidal efficacy** especially suitable for final disinfection
- concentrate
- with corrosion protection
- very high material compatibility, suitable for all materials
- active against bacteria (incl. Tb.-B.), fungi, viruses (HBV/HIV, Polio, Adeno, Vakzinia, Papova)

**tested according DGHM-Guidelines
(12.07.1991): 3 % - 60 minutes
CE 0124 according MDD**

main active agents: glutaraldehyd, quats
neutral, pH 7.0 at 1 %

**application in the ultrasonic bath
5 % - 15 minutes**

DGHM-values, agents in 100 g, expertises, labelling
see page 19

Intensive instrument cleaning

STAMMOPUR R

Cleans medical instruments and devices etc. after wet deposit

- very high cleaning efficiency
- high blood dissolution
- thorough removal of obstinate, incrustes residues like blood and secretions etc.
- concentrate
- pleasant odour
- with corrosion protection
- very high material compatibility, suitable for all materials
- recommended as contact liquid for basic cleaning with STAMMOPUR GR

CE according MDD

main active agents: tensides
mildly alkaline, pH 9.6 at 1 %

**application in the ultrasonic bath
2 % - 3-10 minutes**

DGHM-values, agents in 100 g, expertises, labelling
see page 19

Basic instrument cleaning

STAMMOPUR GR

Basic cleaning of spotted, incrustrated and ugly looking medical instruments, devices in occupational safety and health and diving gears

made of stainless steel, precious metal, plastics

- Removes coloured fog, metal oxides, rust, mineral residues like lime, burned-in residues after sterilisation
- concentrate
- free from acetic and hydrochloric acid
- caution with damaged chrome-plated parts
- not for light metals, tin and zinc
- application only in plastic insert tubs (indirect sonication, contact liquid STAMMOPUR R at 50-60 °C)

CE according MDD

main active agents: phosphoric acid, tensides
acid, pH 1.9 at 1 %

**application in the ultrasonic bath
5 % - 2-15 minutes**

DGHM-values, agents in 100 g, expertises, labelling
see page 19

Disinfection and cleaning in dental surgeries and laboratories

Our products for your benefit:

- Time savings through ultrasound
- Reduced effort
- Optimum cleaning
- Protection of objects being cleaned
- Rapid reusability of the instruments
- Increase in hygienic standard

Ultrasonic technology has been successfully used for decades as an active means of disinfection and cleaning in the dental sector.

Many disinfectants which fulfil the DGHM (German Society of Hygiene and Microbiology) requirements for inactivation of micro-organisms may nonetheless be inappropriate for ultrasonic applications. They may have a damaging effect on the oscillating tank or may not have medically certified specifications on the reduction of exposure time of the disinfectant with ultrasound. This would squander the advantages provided by ultrasonic technology.

The STAMMOPUR, TICKOMED, and STAMMOFORM preparations - specially developed for use with SONOREX ultrasonic equipment - offer a wide spectrum of applications.

All of the disinfectants in the STAMMOPUR product family are fully certified for use in ultrasonic applications as specified by the DGHM. Therefore, safety is always guaranteed during application. The disinfectants make it possible to fully exploit the advantages of ultrasound while remaining gentle on the oscillating tank and the objects being cleaned. They are also easy on the environment and are based on the highest technological and ecological standards.

Of course, the disinfectants can also be used without ultrasound, e.g. for wet deposit.

Application examples:

Dental surgeries

- Cleaning and simultaneous disinfection of general instruments
- Cleaning and simultaneous disinfection of small rotating instruments, extirpation needles etc.
- Removal of dental plasters, alginates, impressing materials
- Cleaning of dentures, braces
- Removal of cements
- Removal of polishing residues
- Disinfection of bite impressions, dentures, braces, etc.

Dental laboratories

- Cleaning of dentures, braces
- Removal of cements
- Removal of polishing residues
- Removal of dental plasters, alginates, embedding materials
- General cleaning of instruments and equipment
- Disinfecting of ready-made dentures, braces etc.

The right agent for your application

Objects to be cleaned	Disinfection and cleaning	Disinfection	Cleaning
General instruments darners, pliers, probes, scissors etc.	STAMMOPUR DR 8	STAMMOPUR DR 8	STAMMOPUR RD 5 TICKOMED 1
Drills, extirpation needles	STAMMOPUR DB	STAMMOPUR DB	TICKOMED 1
Worn dentures	STAMMOFORM D	STAMMOFORM D	STAMMOPUR Z
New dentures	STAMMOFORM D	STAMMOFORM D	STAMMOPUR RD 5
Removal of alginate and plaster residues from casting utensils, instruments etc.	—	—	STAMMOPUR AG
Removal of cement from spatulas, mixing plates, crowns etc.	—	—	STAMMOPUR Z
Removal of dental calculus from dentures, braces etc.	—	—	STAMMOPUR Z
Disinfection of bite impressions (without ultrasound) directly following removal	STAMMOFORM D	STAMMOFORM D	STAMMOFORM D

Instrument disinfection and intensive cleaning

STAMMOPUR DR 8

Simultaneous **disinfection and intensive cleaning** of dental instruments.

- concentrate
- very high cleaning efficiency
- high blood dissolution
- thorough removal of incrustated secretions
- neutral scent
- very high material compatibility, suitable for all materials
- with corrosion protection
- **solution applicable under strain for 3 days**
- active against bacteria (incl. Tb.-B., helicobacter pylori), fungi, viruses (HBV/HIV)

DGHM-certified: 1 % - 60 minutes
CE 0124 according MDD

main active agents: amines, propionates
mildly alkaline, pH 9.4 at 1 %

application in the ultrasonic bath
2 % - 5 minutes

1.5 % - 10 minutes / 1 % - 15 minutes

DGHM-values, agents in 100 g, expertises, labelling
see page 19

Bur disinfection and cleaning

STAMMOPUR DB

Simultaneous **disinfection and cleaning of small rotating instruments** like burs and files as well as extirpation needles and root canal instruments.

- ready for use
- high material compatibility
- caution with light metals
- not for alkali- and alcohol-sensitive materials
- with corrosion protection
- active against bacteria (incl. Tb.-B.), fungi, viruses (HBV/HIV)

DGHM-certified:
15 minutes undiluted
CE 0124 according MDD

main active agents: alcohol, quats, alkali
alkaline, pH 13.0

application in the ultrasonic bath
undiluted - 5 minutes

DGHM-values, agents in 100 g, expertises, labelling
see page 19

Disinfection of bite-impressions

STAMMOFORM D

Simultaneous **disinfection and cleaning of bite-impressions and dentures** after removing or treatment.

- **high form stability** with alginates, silicones, plasters, hydrocolloids and polyether rubber
- powder
- very high material compatibility
- free from aldehydes, chlorine, phenols and quats
- active against bacteria (incl. Tb.-B.), fungi, viruses (Polio, Adeno, Vakzinia, Papova)

DGHM-expertise (surface disinfection as of 12.07.1991): **0.5 % - 60 minutes**
CE 0124 according MDD

main active agents: active oxygen
mildly alkaline, pH 8.9 at 1 %

application without ultrasound
2 % - Immerse for 5 seconds,
disinfected after 15 minutes

DGHM-values, agents in 100 g, expertises, labelling
see page 19



For product characteristics
see page 10

free service

Dosing table
available on request

also see page 18

Universal cleaner for instruments

TICKOMED 1

Removes blood, secretions, sputum, grinding and polishing paste, fat, wax, tissue residues, filling materials, dentinal splinter

from instruments, devices, dentures, burs etc. in surgery and laboratory **after disinfection/treatment.**

- concentrate
- very high material compatibility
- also for use on light metals
- with corrosion protection
- also applicable as contact liquid

CE according MDD

main active agents: tensides
mildly alkaline, pH 9.0 at 1 %

application in the ultrasonic bath
3 % - 2-10 minutes

Intensive cleaner for instruments

STAMMOPUR RD 5

Removes obstinate, encrusted contaminations like blood, secretions, sputum, grinding and polishing residues, fat, wax, tissue residues, filling materials

from instruments, devices, dentures, crowns, etc. in surgery and laboratory **after disinfection/treatment.**

- concentrate
- high material compatibility
- not for light metals
- with corrosion protection

CE according MDD

main active agents: tensides, alkali
alkaline, pH 10.9 at 1 %

application in the ultrasonic bath
3 % - 2 - 10 minutes

Plaster and alginate remover

STAMMOPUR AG

Removes plasters, alginates, impressing and embedding materials

from impression trays, dental tools and accessory in surgery and laboratory.

- 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 minutes

CE according MDD

main active agents: complexing agents
mildly alkaline, pH 8.0

application in the ultrasonic bath
undiluted - 3 - 10 minutes

Cement remover and denture cleaner

STAMMOPUR Z

Removes dental cements, tartar, provisional filling materials, embedding materials, oxides and flux residues

from instruments and dentures.

- concentrate
- for stainless steel, precious metal, plastics, ceramics
- not for light metals
- caution with damaged chrome-plated material
- application only in inset beakers (indirect sonication, contact liquid TICKOMED 1)

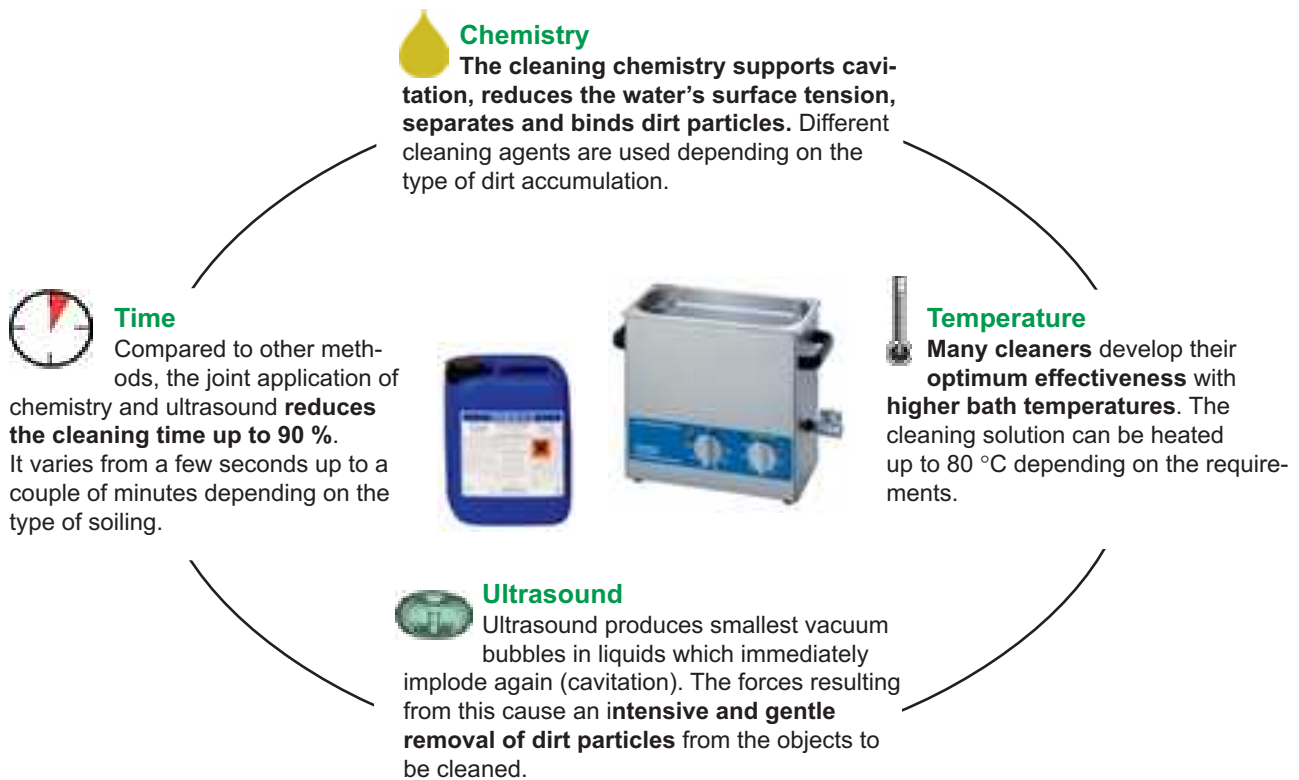
CE according MDD

main active agents: phosphoric acid
acid, pH 1.9 at 1 %

application in the ultrasonic bath
5 % - 2 - 10 minutes

Cleaning agents for ultrasonic cleaning

The four factors of impact within ultrasonic cleaning



"How do I clean properly?" – Leads for the successful application

- The **type and consistency of the parts to be cleaned** and the **soiling** determine the **choice of the right agent**. The tables on the pages 7 and 8 support you in your choice. In case of doubt or with sensitive parts we recommend tests to determine the material resistance and the best cleaning agent.
- The **size of the parts and the quantity for each cleaning process** determine the size of the ultrasonic unit and the choice of the appropriate accessories and aiding parts (basket, holder, filtration, lifting devices, rinsing device etc.).
- **Extremely soiled parts** (e.g. parts with thick layers of fat, oil, wax and resinous residues) have to be **pre-cleaned** mechanically or chemically. Thus unnecessarily long ultrasonic process times are avoided. Additionally the lifetime of the cleaning solution will be prolonged through reduction of soiling.

Note: Ultrasonic cleaning is a **fine precision cleaning** which safely removes even obstinate soiling from hardly accessible places (tapped blind holes, bores, splices etc.). In case of the above mentioned soiling there are certain limits for ultrasonic cleaning. Highly viscous fats, silicon pastes and also chunk soiling cannot be removed by ultrasonic cleaning solely. These layers of dirt represent a "barrier" for the ultrasound and are removed very slowly. This should be considered with the planning of an ultrasonic cleaning.

- The **heating** of a cleaning solution to approx. 40–60 °C considerably **accelerates the cleaning process**.
- After cleaning the parts have to be **rinsed thoroughly with water** to completely remove the cleaning solution and the dissolved soiling from the cleaned parts.
- In order to ensure a **spotless drying**, the last rinsing has to be done with demineralised water (DI-Water). The time of drying can be accelerated through heating of the rinsing bath to temperatures of 40–60 °C.
- The **aftertreatment** is determined by the specific requirements concerning the condition of the parts.

BANDELIN electronic – More than 55 years of expertise in ultrasound technology!

SONOREX – an established brand in the field of cleaning and disinfection with ultrasound. For more than 55 years, this name represents quality and reliability, experience and expertise. In our parent house in Berlin, we develop and manufacture high power ultrasonic cleaners used world-wide whenever there is a demand for thorough decontamination that is gentle to material, too –all this with state-of-the-art products and groundbreaking research.

BANDELIN electronic plays an active role in professional associations and technical committees on standardisation, development and improvement of ultrasonic technology and process engineering. We hold EN ISO 9001 : 2000 and EN ISO 13485 certification for medical products.

Products for our generation

SONOREX SUPER and **SONOREX TECHNIK** ranges are designed to serve the demand for ultrasonic devices with bath volumes from 2 to 210 litres. From compact easy-to-use devices, to high performance technical equipment, to module programs with multiple process stages, **SONOREX** devices offer the optimum solution for every user. Since **TICKOPUR** and **STAMMOPUR** cleaning chemicals from **DR. H. STAMM** are designed to suit the specific conditions inside the ultrasonic bath, economically and ecologically sound cleaning and disinfection processes are guaranteed. The complex range of accessories ensures that the parts to be cleaned are treated optimally at every stage.

By systematically incorporating user needs, we have been able to develop two international innovations: the pipette cleaning unit and the programmable digital device for laboratory applications.

To integrate high-energy ultrasound in surface technique processes, we have developed high performance immersible transducers and generators that can be individually added to external systems. Thanks to the **WINSONIC**® controller software developed by **BANDELIN electronic**, all generator functions and connected ultrasonic loads can be simply and easily defined and controlled from the PC screen.

Where is SONOREX ultrasonic technology used?

The advantages of fast, intensive and at the same time gentle surface treatment using ultrasound is appreciated in countless applications. Compared to other forms of cleaning, aqueous ultrasonic cleaning is a very economical alternative, saves time and only involves minimal waste disposal expenditure. **SONOREX** technology can be found in industry, trade and service sectors as well as in laboratories. Disinfection with simultaneous ultrasonic cleaning is a standard method in the dental and medical sector, both in terms of occupational health and safety and hygiene. The scope of ultrasonic cleaning applications ranges from the finest instruments for micro-invasive surgery to decontaminating parts on an industrial scale.

Ultrasound does more than clean

The systemic implementation of research results has also led to the development of ultrasonic applications outside the cleaning sector. The effective use of our patented **SONOPULS** homogenizers and **SONOREACTOR SR 1000** in the laboratory and sonochemical process engineering demonstrates the strength of our company.



SONOREX DIGITAL
DK 102 P



SONOREX LONGLIFE
RK 515 CH



SONOREX SUPER RK 1028 H



Pipette cleaner
SONOREX PR 140 C



Sonoreactor
SONOREX TECHNIK
SR 4-1040



SONOREX TECHNIK
Modular installation of RM 16 series



SONOREX TECHNIK
Immersible transducer T 25 445 E and generator LG 2000 T



Homogeniser
SONOPULS HD 2200

Customer service

Customer service with DR. H. STAMM: Information directly from the manufacturer

Our complete customer service offers every user competent counselling regarding cleaning and disinfection with ultrasound.

Detailed information on specific product features, fields and conditions of application come to you directly from the source. You save time and money and find the optimal solution for your problem.

**Specialist counselling by phone:
0049 - (0)30 - 76 88 02 24**

Please note this pre-requisite for a successful consultation:

Before you call, please hold the following indications ready:

Parts to be cleaned (material etc.): _____

Volume of parts to be cleaned: _____

contamination: _____

A dosing table for Sonorex ultrasonic cleaners. The table has columns for 'Dose', 'Time', 'Temperature', 'Concentration', and 'Volume'. It lists various cleaning agents and their recommended dosing parameters for different cleaning tasks.

A second dosing table for Sonorex ultrasonic cleaners, similar to the first one, providing detailed dosing information for various cleaning agents and conditions.

Free dosing table available!

Service summary

Personal customer service

Specialist counselling by phone

Competent experts make their expertise available to you.
Call 0049 - (0) 30 - 76 88 02 24

Inquiries by fax

will be dealt with the same day.
Fax to 0049 - (0) 30 - 7 73 46 99

Trial cleanings

Are being performed under real conditions of applications in our own laboratory.

We use **Sonorex** ultrasonic cleaning units by **BANDELIN electronic**. Test cleanings are done free of charge according to prior consultation and are being recorded in a protocol made available on request.

In-house exhibition at Bandelin electronic

Our distribution partner offers in his show-room trial cleanings with our products.

Customer service through internet and e-mail

Internet-Service under <http://www.dr-stamm.de>

On this site, we offer product information and CE safety data sheets as single PDF-files for download.

Inquiries by e-mail

will be dealt with the same day: info@dr-stamm.de

Special customer service

Sonorex dosing tables

can be obtained from us free of charge. Water repellent version for direct use at your work station or for your documentation.

Special agents on request

Are you unable to find the solution for your cleaning or disinfection task? We shape special agents for your particular requirements on request (minimum purchase).

Product data

Active agents and expertises

STAMMOFORM D: Active agents in 100 g: 24.0 g acetylsalicylic acid, 37.5 g sodium percarbonate, complexing agents, <5 % anionic tensides, citrates, carbonates. Expertises: Bacteria, fungi according DGHM* (surface disinfection); Prof. Dr. Hartmann, 9/94 Berlin; Viruses: (Polio, Adeno, Papova, Vakzinia); Prof. Dr. Hartmann, 9/94 Berlin.

STAMMOPUR 23: Active agents in 100 g: 6.0 g glutaraldehyde, 8.0 g didecylmethylammoniumchloride, <5 % non-ionic tensides, 2-propanole, corrosion inhibitors. Expertises: Bacteria, fungi according DGHM* (12.07.1991); Prof. Dr. Hartmann, 9/93 Berlin; Dr. Bernhard, Berlin 1/94 and 6/94; Viruses (HBV/HIV); Dr. Steinmann, Bremen 04/98; Viruses: (Polio, Adeno, Papova, Vakzinia); Prof. Dr. Hartmann, 09/92 Berlin; time reduction: Prof. Dr. Hartmann, 02/95 Berlin.

STAMMOPUR 24: Active agents in 100 g: 9.9 g Bis(3-aminopropyl)dodecylamine, 12.0 g Didecylmethylpolyoxyethylammoniumpropionate, 5-10 % non-ionic-tensides, 30-50 % solvents, complexing agents, pH-regulators, corrosion inhibitors. Expertises: Bacteria, fungi according DGHM*; Prof. Dr. Schubert, Frankfurt 06/99; Prof. Dr. Werner, Schwerin 12/98; HBV/HIV; Prof. Dr. Frösner, München 08/99; time durability: Prof. Dr. Werner, Schwerin 10/99; ultrasound time reduction: Dr. W. U. Färber, Gießen 08/02.

STAMMOPUR DB: Active agents in 100 g: 30 g 2-propanole, 0.1 g didecylmethylammoniumchloride, <0.5 g sodiumhydroxide, inhibitors, inorganic salts. Expertises: Bacteria, fungi according DGHM*; Prof. Dr. Hartmann, 06/93 Berlin; Prof. Dr. Gundermann 06/94 and 04/98 Kiel; Prof. Dr. Werner, Schwerin 02/98; Viruses (HBV/HIV); Dr. Steinmann, Bremen 03/98; ultrasound time reduction: Prof. Dr. Hartmann, 03/94 Berlin.

STAMMOPUR DR: Active agents in 100 g: 6.0 g glutaraldehyde, 8.0 g didecylmethylammoniumchloride, <5 % non-ionic tensides, 2-propanole, corrosion inhibitors. Expertises: Bacteria, fungi according DGHM* (12.07.1991); Prof. Dr. Hartmann, 09/93 Berlin; Dr. Bernhard, Berlin 01/94 and 06/94; Viruses (HBV/HIV); Dr. Steinmann, Bremen 04/98; Viruses: (Polio, Adeno, Papova, Vakzinia); Prof. Dr. Hartmann, 09/92 Berlin; ultrasound time reduction: Prof. Dr. Hartmann, 02/95 Berlin.

STAMMOPUR DR 8: Active agents in 100 g: 9.9 g Bis(3-aminopropyl)dodecylamine, 12.0 g Didecylmethylpolyoxyethylammoniumpropionate, 5-10 % non-ionic-tensides, 30-50 % solvents, complexing agents, pH-regulators, corrosion inhibitors. Expertises: Bacteria, fungi according DGHM*; Prof. Dr. Schubert, Frankfurt 06/99; Prof. Dr. Werner, Schwerin 12/98; Helicobacter pylori; Prof. Dr. Werner, Schwerin 08/00; HBV/HIV; Prof. Dr. Frösner, München 08/99; time durability: Prof. Dr. Werner, Schwerin 10/99; ultrasound time reduction: Dr. W. U. Färber, Gießen 08/02.

STAMMOSEPT: Active agents in 100 g: 24.0 g acetylsalicylic acid, 37.5 g sodium percarbonate, complexing agents, <5 % anionic tensides, citrates, carbonates. Expertises: Bacteria, fungi according DGHM*; Prof. Dr. Hartmann, 01/85 Berlin, Prof. Dr. Gundermann, Kiel 11/84; Viruses: (Polio, Adeno, Papova, Vakzinia); Prof. Dr. Hartmann, 11/84 Berlin; ultrasound time reduction: Prof. Dr. Hartmann, 10/95 Berlin.

The above mentioned expertises are available on request.

Marking according EC-Directives:



C, corrosive
R 20/22-34-42/43: STAMMOPUR DR, STAMMOPUR 23.
R 22-34: STAMMOPUR DR 8, STAMMOPUR 24.
R 22-35-41: STAMMOPUR DR 2.
R 34: STAMMOPUR Z, STAMMOPUR GR, TICKOPUR R 27, TICKOPUR R 61, TICKOPUR TR 13.
R 35: TICKOPUR R 60.



Xi, irritant
R 10-36/38: STAMMOPUR DB.
R 36/38: TICKOPUR R 32, TICKOPUR R 33, TICKOPUR R 36, TICKOPUR RW 77, TICKOPUR TR 2, TICKOPUR TR 3, TICKOPUR TR 14.
R 36/38-41: TICKOMED 1, STAMMOPUR RD 5



Xn, harmful
R 22-36/38: STAMMOFORM D, STAMMOSEPT.
R 40-52/53: TICKOPUR J 80 U.

Risk phrases

R 10: Flammable.
R 20/22: Harmful by inhalation and if swallowed.
R 22: Harmful if swallowed.
R 34: Causes burns.
R 35: Causes severe burns.
R 36/38: Irritating to eyes and skin.
R 40: Limited evidence of a carcinogenic effect.
R 41: Risk of serious damage to eyes.
R 42/43: May cause sensitisation by inhalation and skin contact.
R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This information solely refers to the products in their state of delivery (concentrates). The watery solutions of the products in a concentration up to 5 % are not classified as hazardous products (except for STAMMOPUR DB, STAMMOPUR AG, TICKOPUR J 80 U and TICKOPUR R 60). The usual precautions with the handling of chemicals are to be observed. For detailed information please see corresponding safety data sheets.

DGHM*-values without ultrasound

STAMMOPUR DR 2: 3 % - 60 min; 4 % - 30 min; 5 % - 15 min.
STAMMOPUR DR 8: 1 % - 60 min; 2 % - 30 min; 3 % 15 min.
STAMMOPUR DB: undiluted 15 min.
STAMMOPUR DR: 3 % - 60 min; 4 % - 30 min.
STAMMOPUR 23: 3 % - 60 min; 4 % - 30 min.
STAMMOPUR 24: 1 % - 60 min; 2 % - 30 min, 3 % - 15 min.
STAMMOFORM D: 0.5 % - 60 min; 1.5 % - 15 min.
STAMMOSEPT: 3 % - 60 min (bacteria, fungi); 5 % - 60 min (Tb.-B.); 2 % - 60 min (viruses).

* = DGHM Deutsche Gesellschaft für Hygiene und Mikrobiologie (German Society for Hygiene and Microbiology)

Use disinfectants safely. Always read the label and product information before use.

Safety data sheets according EC-directives and product information available as PDF-download in the internet: www.dr-stamm.de

Disposal

The disposal of used solutions is done according to the specifications in the product information and the safety data sheet. All agents are miscible with water, produced in compliance with the German washing and cleaning agents law (WRMG), biodegradable and can be let into the sewerage without objection. Strongly acid and strongly alkaline liquids have to be neutralised before as specified in the data sheets. Disinfection and cleaning agents are classified as "waste" according to the German "disposal law" (AbfG Abfallgesetz) and cannot be taken back by the manufacturer. During the cleaning process all kinds of water polluting substances may be brought into the cleaning liquids, e.g. oil, heavy metal compounds etc. When exceeding the limit values, the cleaning solution has to be processed (removal of the pollutants) or disposed as special refuse. **In either case**, the legal regulations and the regulations of municipal sewage plants have to be observed. Information is provided by the municipal sewage plants and the environmental authorities of the region.

Empties

Bottles and jerry cans have to be emptied completely and rinsed. They can be recycled. The disposal of 200-litres-barrels can be done by local barrel trading companies. Packagings like foils and cardboards have to be disposed separately.

Storage

Products have to be stored upright, closed, dry and at room temperatures.

Shelf life

When stored properly, the products are durable for a long time. The disinfection agents have to be used according to the expiry dates on the labels.

Safety instructions

Different agents shall not be mixed among each other or with other liquids apart from water. The risk- and safety-phrases on the labels and in the safety data sheets have to be observed.

Note

The recommendations for our products are given to the best of our knowledge, without obligation and are not intended to guarantee any particular properties. We recommend doing your own tests regarding the material consistency and the process. In this respect, we do not assume any liability.

Please observe the dosing and application information for ultrasonic cleaning on the labels and in the product information.

Subject to alterations without notice.

Subject to alterations without notice.

Do you still have questions regarding our product data? Any questions unanswered? Do not hesitate to call us. We will be glad to advise you.

DR·H·STAMM – Products with profile

Serving customers for more than 65 years

Ever since we at **DR. H. STAMM** GmbH have been involved in development and manufacture of specialist compounds for all kinds of applications. We have made the broad fields of cleaning and disinfection our business for more than four decades. The constant development and improvement of **TICKOPUR** and **STAMMOPUR** agents has led to the creation of product ranges that are tailored to meet our national and international clients' requirements. In this process, we pay particular attention to the environmental impact of our products, as well as to safety in terms of their effect and how they are used.



Synergy builds expertise

Our close cooperation with one of the leading manufacturers of ultrasonic apparatus, **BANDELIN electronic**, ensures that our products are ideally suited for the special conditions inside the ultrasonic bath. By binding together extensive knowledge on ultrasonic cleaning and the behaviour of active and auxiliary ingredients in the ultrasonic bath, we find the ideal solution. By introducing new products over the last years, we have intensified our efforts to move away from highly polluting non-aqueous cleaning processes to environmentally sound aqueous cleaning with **SONOREX** ultrasonic devices. Our expertise comes from combining the chemical and physical process – to the benefit of our clients.



Trust is one thing, certification is even better

We have been certified according to the established DIN EN ISO 9001 quality management standard since 1997. Together with additional certification to DIN EN 46001, the basis for manufacturing and distributing medical products was complete. The changeover to EN ISO 9001 : 2000 and EN ISO 13485 was implemented without difficulty.

All disinfectants are DGHM certified and tested. Independent testing has confirmed the microbiological effectiveness of our disinfectants at low concentrations and with shorter treatment times in ultrasonic baths as well as in disinfection devices.

Our detergents are regularly tested and developed for reliable effect and optimum material tolerance according to comprehensive quality standards.



Part of a respirator, cleaned with **TICKOPUR R 33**



before



after

