BANDELIN
Ultrasound since1955

High-power ultrasound
Sonoreactors

Cleaning – Degassing
Disagglomeration – Emulsifying – Disinfection

SONOREX® TECHNIK
Sonoreactors

SONOBLOC®

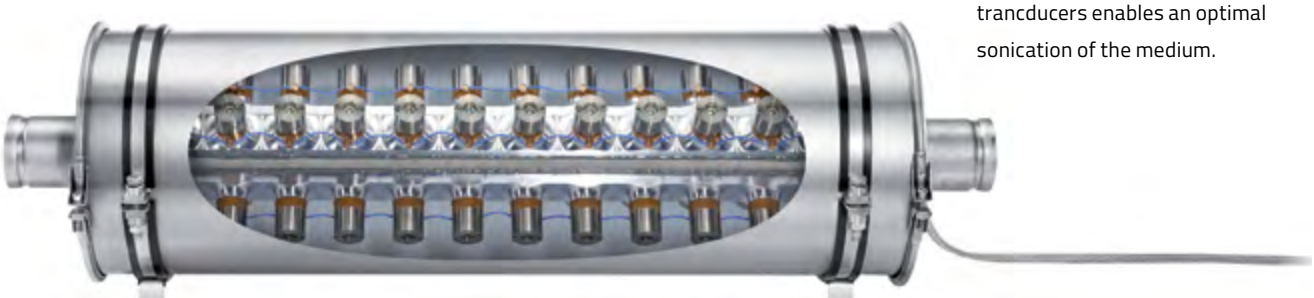
Tube reactors for use in process engineering and for cleaning

SB 8-1002,1

SB 101-2002

Applications

- ultrasonic intensive treatment of flexible fibrous products and wire or band-shaped endless profiles
- support of industrial and biotechnological processes in cleaning, disintegrating, degassing and disagglomerating
- efficient cleaning by removing grease, oil, emulsions and/or crack residues with single- and multiple-wire cleaning
- CO_2 degassing of aqueous reactants
- support of disinfection (bacterial elimination) in water and wastewater treatment
- disintegration and decomposition of organic material to increase the biogas yield of anaerobic digestion
- support of disinfection of bacteria- and parasite-burdened fishbreeding circulating waters
- dispersion of solid particles in liquids (medicine production)



Set-up of a tube reactor:
The special arrangement of trancducers enables an optimal sonication of the medium.

VORTEX®

Vortex reactor for use in process engineering

patent EP 22 23 742

WR 4-1503,01

Applications

- intensifying of industrial, biotechnological and chemical processes, disintegrating, degassing and disagglomerating
- intense degassing of dye solutions and photographic emulsions
- CO_2 degassing of aqueous reactants
- support of disinfection (bacterial elimination) in water and wastewater treatment
- disinfection of organic contaminant material in industrial rinsing liquids for recycling
- support of disinfection of bacteria- and parasite-burdened fishbreeding circulating waters
- producing of finest polishing pastes for wafer industry
- homogenizing of pigments in oil (producing of ink)

Technical data regarding sonoreactors please see next page.

Ultrasonic-UV-reactor for use in process aquaculture, water treatment and sewage disinfection

UV 5-1002,05

Applications

- elumination of germs and parasites in the circulation water of aquaculture systems (fish and ornamental fish farming, leech farming)
- disinfection (elumination of bacteria) during water and sewage treatment

	SONOBLOC tube reactorbloc RB			VORTEX reactorbloc WB			ultrasonic-UV-reactorbloc AQ
	8-1002	**8-1004**	**101-2002**	**4-1402**	**4-1503**	**4-1604**	**5-1002.05**
flow-through rate (l/min)	1–100			1–50			3.5–50
internal pressure, max. (bar)	10			10			2 (UV lamp)
solid particles (mm)	< 50		< 80	< 5			< 5
power density, max. (W/l)	500		444	480	520	550	~ 420
power max. (W)	1000		2000	1400	1500	1600	1000
frequency (kHz)	25	40	25	25	25 / 40	40	25
radiation power							UV-C 254 nm
reaction tube	tube 2"		tube 3"	gap between 2 tubes			gap between 2 tubes
tube material stainless steel AISI 316Ti **dimmensions (mm)**	dia. 60.3 × 3.6		dia. 88.9 × 3.6	dia. 139.7 × 2.6; dia. 104 × 2			dia. 88.9 × 3.6; dia. 48.3 × 2
dimensions of housing (l × w × h) (mm)	260 × 150 × 990		dia. 370 × 1215	290 × 290 × 642			895 × 895 × 1000
built-in length (mm)	1215			856			
Degree of protection	IP 22, optional IP 65		IP 65	IP 22			IP 30
weight, net (kg)	~ 35		~ 50	~ 50			~ 55
HF generator (separate)	LG 1001 T		LG 2002 T	LG 1510 T	LG 2002 T		LG 1001 T-UV

Accessories (optional)

victaulic connection, consisting of:
2 pcs. 2" or 3" victaulic stainless steel coupling, AISI 316Ti with EPDM gasket
2 pcs. stainless steel tube connection, AISI 316Ti, 2" or 3", for welding into existing pipe system

BANDELIN – Ultrasound since 1955

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.

BANDELIN electronic is the leader in development of new ultrasonic devices and opening up new application areas. In the past about 33 patterns / utility patents and 56 brand names were applied for.
The company supports several committees in compiling of norms and guidelines.
All products are CE marked.

CE-marked.
Subject to technical alterations.

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certified according to
EN ISO 9001:2008
EN ISO 13485:2012