

# Ultrasonic Homogenizers

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## **BANDELIN SONOPULS HD 3200 homogeniser**



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SONOPULS homogenisers with integrated amplitude control 10-100 % and actual value display, pulsation, AMPLICHRON®-System, built-in timer, remote controlled. CE-marked, also as medical device compliant to the directive for in-vitro diagnostics 98/79/EG. HD 3100, HD 3200 und HD 3400 with power control, temperatur and energy monitoring, 9 user programs and PC control.

SONOPULS HD 3100, HD 3200 und HD 3400 for research:

#### Fields of application

- Disruption of cells, bacteria, virus, tissue
- Production of emulsions
- Homogenization of substances
- Sample preparation for HPLC
- Degassing of fluids
- Sample preparation for particle size analysis
- Acceleration of chemical reactions

**Ready-to-operate for volumes from 20 ml to 900 ml consisting of:**

- HF generator GM 3200
- ultrasonic converter UW 3200
- booster horn SH 213 G
- titanium flat tip TT 13, diameter 13 mm

**Technical data:**

Sample volume	up to 1000 ml
HF-power	max. 200 Weff
Amplitude control	10 - 100 %
Power control	yes (HF power)
Automatic amplitude limiting	yes, after preselection of probe
Pulsation	ON cycles 0.2 - 600 s, OFF cycles 0.3 - 600 s
Time modes	9 h: 59 min: 59 s, continuous or timed
Safety shut down	9 h: 59 min: 59 s
Display	grafic / alphanumeric liquid crystal display of amplitude, pulsation mode, time, energy and optionally temperature
Menu guided	comfortable setting of all values through "push & turn"
Energy monitoring	in kJ
Temperature monitoring and measurement	optional, 0 - 120 °C, temperature probe necessary, optional signal tone or switch-off
User programs	9 with software WINPULS®: 99
Remote control with PC	RS 232 (infrared)
PC-Software, optionally available	WINPULS®

Error diagnosis	yes
Processing frequency	20 kHz
Automatic storage of the last adjusted values	yes
Operating test	yes
Remote control	foot switch
Power supply	230 V, 50/60 Hz, optionally 115 V, 50/60 Hz