

Ultrasonic Processors, Hielscher Ultrasonics GmbH

High power ultrasonic devices for the use in laboratories: Hielscher ultrasonicators are reliable, user-friendly and extremely flexible. The typical applications include sample preparation, dissolving, mixing, blending and homogenizing, emulsifying, dispersing and deagglomeration, lysis, cell disintegration and extraction, degassing as well as sonochemical processes.

① Ultrasonic Homogenizer UP100H set (processor, stand, sonotrode)

For direct sonication.

Applications: homogenizing and blending, dispersing, emulsifying, lysis and cell disintegration, degassing sonochemical processes

Advantages:

- high intensity
- handhold and stand-mounted use
- small footprint
- reproducible results due to adjustable and controllable amplitude
- pulse / cycle mode
- dry running protection
- further accessories available

100 watts, 30 kHz ultrasonic frequency, automatic frequency tuning, amplitude adjustable from 20 to 100%, pulse mode adjustable from 0 to 100%, dry running protection, portable case, with stand mount & mounting tools, IP40 grade, titanium horn w/ female thread M6 x 0.75, sonotrode MS7 from titanium, tip diameter 7 mm, length 80 mm, for volumes from 10 ml to 250 ml, incl. stainless steel stand ST1-16.

Article	Order No.
Ultrasonic homogenizer UP100H set	10 82 01100

② VialTweeter set (generator, sound converter, sonotrode)

The VialTweeter enables for the simultaneous sonication of up to 10 test tubes/vials and facilitates thereby the preparation of multiple samples at the same time. Intense ultrasonic power of up to 10 watts per vial is transmitted indirectly via the vessel wall into the medium by which a significantly better sonication than in an ultrasonic bath is achieved.

Advantages:

- Intense sonication of up to 10 vials simultaneously
- Indirect sonication: high ultrasonic energy transmission through vessel wall into the sample
- Indirect sonication avoids cross-contamination and sample loss
- Reproducible results due to adjustable and controllable amplitude
- Adjustable pulse mode from 10 to 100%
- Autoclavable block sonotrode

UP200ST:

200 watts digital ultrasonic processor, frequency 26 kHz (auto-scan), amplitude 20 – 100%, pulse 10 – 100%, transducer IP65, generator IP51 grade, colored touch-screen, amplitude or power control, countdown (timer): 0.1 sec to 99 days, shutdown when final energy input reached (Ws, Wh, kWh), dry running protected, autom. calibration of the amplitude-dependent idle power, data recording: amplitude, power, time, temperature on internal SD-Card (1 GB), display and remote control via browser on PC/MAC without software installation, remote control via PLC, with temperature sensor, temperature indication: °C/°F (-50°C to 200°C), temperature monitoring, power supply 100-240 V~, 50-60 Hz, carrying case, incl. 3 m network cable

VialTweeter:

S26d10x10VialT block sonotrode, only for UP200St, for simultaneous sonication of up to 10 Eppendorf Vials, for vials and test tubes of 0.5 ml, 1.0 ml, 1.5 ml or 2.0 ml volume, e.g. 12 x 32 mm, other vial sizes available on request.

Article	Order No.
VialTweeter set	10 82 01126

③ Sonotrode S26d7 (optional for UP200St)

For direct sonication with the UP200St in the beaker, made of titanium, Ø 7 mm, approx. length 95mm, male thread M6 x 0.75, for samples from 20 ml up to 500 ml, amplitude ratio approx. 1:2.5.

Article	Order No.
Sonotrode S26d7	10 82 01026



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