

## SonoStep – Multi-Functional Ultrasonic Device with integrated Stirring and Pumping Functions

Ultrasonic  
Device  
UP200St-TD  
with SonoStep



generator UP200St + transducer TD + top piece SonoStep

[www.hielscher.com/SonoStep](http://www.hielscher.com/SonoStep)



**TD + SonoStep** for combined pumping, stirring & sonication

Technical  
Details

The **SonoStep** is the perfect device for reliable and comfortable sample preparation. The three essential functions of continuous **sonication, stirring and pumping** are integrated in a compact device. Ultrasound, and centrifugal pump are integrated into an agitated stainless steel beaker.

The 200 watts digital ultrasonic generator is equipped with touch display and automatic data recording, ultrasonic frequency 26kHz (auto scan); countdown timer, shutdown when final energy input reached (Ws, Wh, kWh); auto-calibration of the amplitude-dependent idle power; data recording: amplitude, power, time, temperature on internal SD/USB ComboCard; display+remote control via browser on PC/MAC without software installation, remote control via PLC.

Applications

Small Volume Processing & Sample Preparation before Analysis: **Sonication, Stirring and Pumping** in one device

Advantages

• **Performance:**

- Consistent sonication with up to 200 watts for sample preparation.
- The SonoStep **pumps, stirres** and **sonicates** the sample in recirculation.
- Mixing/ Dispersing/ Deagglomeration + **De-aeration** by Power Ultrasound
- Direct connection to the analytical device for most accurate measurements.
- No sample loss, no cross-contamination

• **Efficiency:**

- effortless sample preparation by simple setup and operation of one device
- time saving: the power levels allow for sophisticated sonication in a short time, similar to direct sonication by a homogenizer with the advantage that the SonoStep delivers the sonicated sample directly to the analytical device
- direct connection of the SonoStep with the analytical device, e.g. for particle measurement

• **Flexibility:**

- Simple setup and operation
- Quick-locking mechanism for fast and simple cleaning
- Simply exchanable hose or pipe connections
- Cuphorn and flow cell for specific applications are additionally available