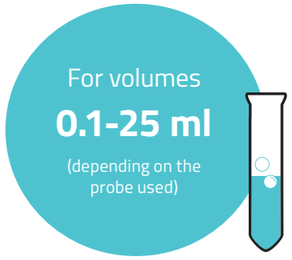
SONOPULS HD 5020
Ultrasonic homogeniser 30 kHz and 20 W

The HD 5020 is ideal for the gentle sonication of very small sample volumes of 0.1-25 ml at 30 kHz with probes with a diameter of 1.5-2.5 mm. The generator produces an output of up to 20 W.



Ready-to-use set:

Nominal ultrasonic power max. 20 W
- Ultrasonic generator GM 5050
- Ultrasonic converter UW 5020
- Probe MS 1.5, Ø 1.5 mm (for volumes 0.1–10 ml)
- Tools for mounting the probes

Code no.
15020 - EU plug CEE 7/7
15020-GB - GB connector BS 1363
15020-CH - CH connector SEV 1011: T12
15020-1 - US plug NEMA 5–15

Note:

Low noise level compared to the more powerful homogenisers.

Sample containers:

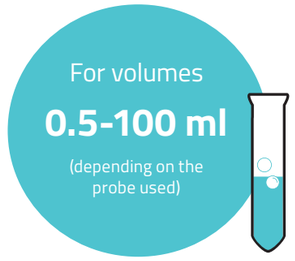
- PCR tubes
- Cryotubes
- Reaction cups

Ultrasonic generator	GM 5050
l × w × h [mm]	380 × 195 × 215
Ultrasonic converter	UW 5020
Ø × L [mm]	50 × 150
Suitable probes Ø [mm]	1.5 / 2.0 / 2.5

MS 1.5 MS 2.0 MS 2.5

SONOPULS HD 5050
Ultrasonic homogeniser 20 kHz and 50 W

The HD 5050 is particularly suitable for the gentle sonication of small sample volumes of 0.5-100 ml at 20 kHz and probes with a diameter of 2-9 mm. The generator operates with an output of up to 50 W.



Ready-to-use set:

Nominal ultrasonic power max. 50 W
- Ultrasonic generator GM 5050
- Ultrasonic converter UW 5050
- Probe TS 102, Ø 2 mm (for volumes 0.5-20 ml)
- Tools for mounting the probes

Code no.
15050 - EU plug CEE 7/7
15050-GB - GB connector BS 1363
15050-CH - CH connector SEV 1011: T12
15050-1 - US plug NEMA 5-15

Sample containers:

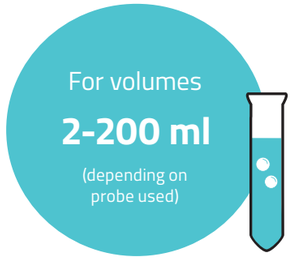
- PCR tubes
- Cryotubes
- Reaction cups

Ultrasonic generator	GM 5050
l × w × h [mm]	380 × 195 × 215
Ultrasonic converter	UW 5050
Ø × L [mm]	50 × 185
Suitable probes Ø [mm]	2 / 3 / 4.5 / 6 / 9

TS 102 TS 103 TS 104 TS 106 TS 109

SONOPULS HD 5100
Ultrasonic homogeniser 20 kHz and 100 W

The HD 5100 optimally sonicates sample volumes of 2-200 ml at 20 kHz and probes with a diameter of 2-13 mm. Up to 100 W of power is provided by the generator.



Ready-to-use set:

Nominal ultrasonic power max. 100 W
- Ultrasonic generator GM 5200
- Ultrasonic converter UW 5100
- Step horn SH 100 G
- Probe TS 103, Ø 3 mm (for Volumina 3-50 ml)
- Tools for mounting the probes

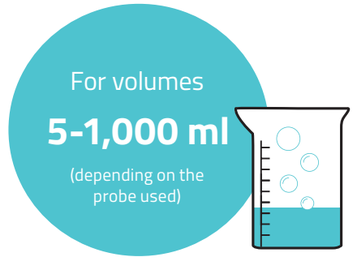
Code no.
15100 - EU plug CEE 7/7
15100-GB - GB connector BS 1363
15100-CH - CH connector SEV 1011: T12

Sample containers:
- Cryotubes
- Reaction cups
- Beakers

Ultrasonic generator	GM 5200
l × w × h [mm]	380 × 195 × 215
Ultrasonic converter	UW 5100
Ø × L [mm]	70 × 155
Suitable probes Ø [mm]	2 / 3 / 4.5 / 6 / 9 / 13

SONOPULS HD 5200
Ultrasonic homogeniser 20 kHz and 200 W

The HD 5200 is ideal for gentle sonication of medium sample volumes in the range of 5-1,000 ml at 20 kHz and with probes with a diameter of 3-25 mm. The generator produces an output of up to 200 W.



Ready-to-use set:

Nominal ultrasonic power max. 200 W
- Ultrasonic generator GM 5200
- Ultrasonic converter UW 5200
- Booster horn SH 200 G
- Probe TT 213, Ø 13 mm (for volumes 20-900 ml)
- Tools for mounting the probes

Code no.
15200 - EU plug CEE 7/7
15200-GB - GB connector BS 1363
15200-CH - CH connector SEV 1011: T12

Sample containers:
- Reaction cups
- Beakers
- Rosette cells
- Laboratory flask

Ultrasonic generator	GM 5200
l × w × h [mm]	380 × 195 × 215
Ultrasonic converter	UW 5200
Ø × L [mm]	70 × 155
Suitable probes Ø [mm]	3 / 4.5 / 6 / 9 / 13 / 16 / 19 / 25

SONOPULS Series HD 5000
Ultrasonic converter

The right ultrasonic converter for every application.

Kompatibilität:
GM 5050 for UW 5020 and UW 5050,
GM 5200 for UW 5100 and UW 5200

Ultrasonic converter UW 5200

Buttons

There is a button on the ultrasonic converter. This can be used to switch ultrasonic operation ON/OFF and to control hand-guided pulsation. There is also a connection socket on the ultrasonic converter for using a temperature sensor to monitor the sample temperature.

Ultrasonic converter UW 5050

Connection for temperature sensor TM 5000

For temperature monitoring, the temperature sensor is connected to the socket provided for this purpose, which is otherwise covered with a dust cap. A temperature display appears on the generator, allowing the user to record the temperature at any time. If the limit temperature is exceeded, a warning signal sounds and/or the process is automatically stopped.

Temperature sensor TM 5000

Ultrasonic converter

An ultrasonic converter is used to convert the electrical energy supplied by the ultrasonic generator into mechanical vibrations.

With the exception of the UW 5020, which operates at 30 kHz, all other SONOPULS ultrasonic converters in the 5000 series operate at an ultrasonic frequency of 20 kHz.

Ultrasonic operation can be started and stopped by operating the "Start", "Pause" and "Stop" buttons on the touch display or via the button on the ultrasonic converter. Two options can be selected for the function of the button on the ultrasonic converter. The options can be selected under "Settings".

Ultrasonic converter UW 5020

Operating frequency:
30 kHz

Dimension:
Ø 50 × 150 mm

Cable length:
2.5 m

Code No. 3738

Ultrasonic converter UW 5050

Operating frequency:
20 kHz

Dimension:
Ø 50 × 185 mm

Cable length:
2.5 m

Code No. 3739

Ultrasonic converter UW 5100

Operating frequency:
20 kHz

Dimension:
Ø 70 × 155 mm

Cable length:
2.5 m

Code No. 3749

Ultrasonic converter UW 5100 with standard horn SH 100 G
Code No. 3764

Ultrasonic converter UW 5200

Operating frequency:
20 kHz

Dimension:
Ø 70 × 155 mm

Cable length:
2.5 m

Code No. 3761

Ultrasonic converter UW 5200 with booster horn SH 200 G
Code No. 3765

SONOPULS Series HD 5000
Ultrasonic generator

There are two different ultrasonic generators to choose from. They are specified for various applications due to their different power ranges. The easy-care and robust plastic housing, equipped with a practical recessed grip for easy transportation and positioning on the laboratory bench, is identical for both versions. The various SONOPULS ultrasonic homogenisers in the HD 5000 series can be connected directly to the ultrasonic generators depending on their compatibility.

The modern 7" touch display offers intuitive, user-friendly operation. Setting the set values for amplitude, pulsation and time and the display of the actual values enable reproducible results.

Ultrasonic generator GM 5050

Suitable for:
- UW 5020 / UW 5050

Further information:
- External dimensions (l × w × h): 380 × 195 × 215 mm
- Mains cable: 1.5 m
- Mains connection 100-240 V~ ±10 %, 50/60 Hz

Code no.
373602 - 230 V EU plug CEE 7/7
373602-GB - 230 V GB plug BS 1363
373602-CH - 230 V-CH Connector SEV 1011: T12
373602-1 - 115 V US plug NEMA 5-15

Ultrasonic generator GM 5200

Suitable for:
- UW 5100 / UW 5200

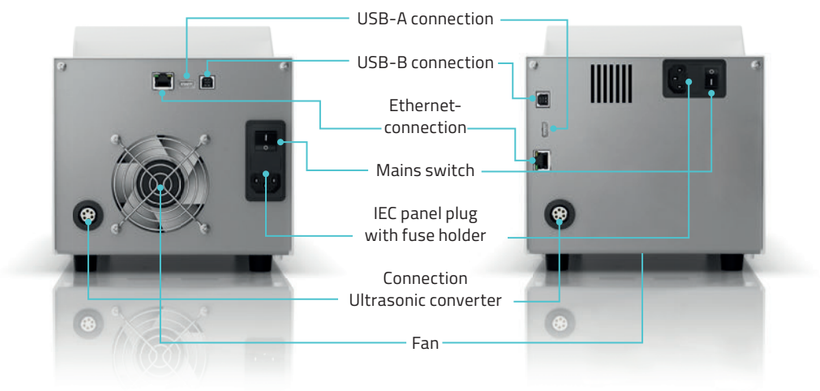
Further information:
- External dimensions (l × w × h): 380 × 195 × 215 mm
- Mains cable: 1.5 m
- Mains connection 230 VAC (±10 %), 50/60 Hz

Code no.
3736 - 230 V EU plug CEE 7/7
3736-GB - 230-V-GB plug BS 1363
3736-CH - 230 V-CH plug SEV 1011: T12

Front side

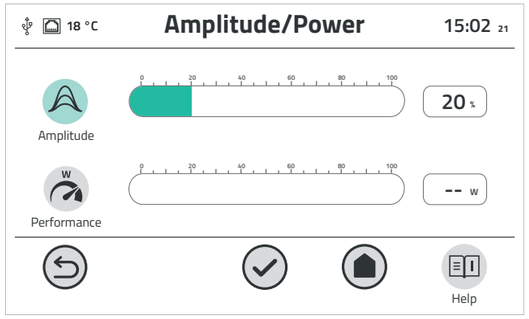
7"-touch display, color, comfortable inclination

Back side GM 5050



Back side GM 5200

Operating concept / Display

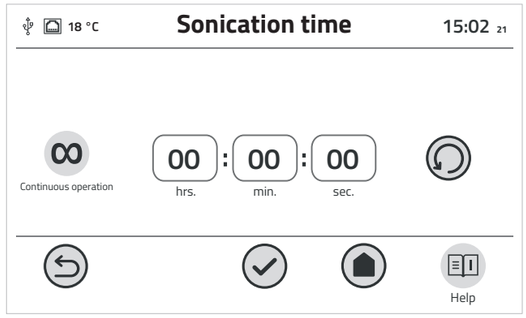


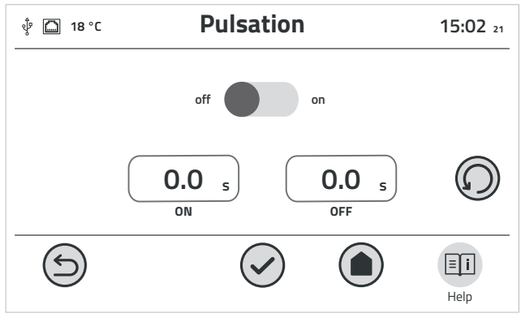
Amplitude and power setting

Amplitude setting in 1-% increments (in the range from 10-100 %) for all probes. The alternative power control in watts is also possible via a slider or a numerical input. The display of actual values allows continuous process control.

Time setting and sequence

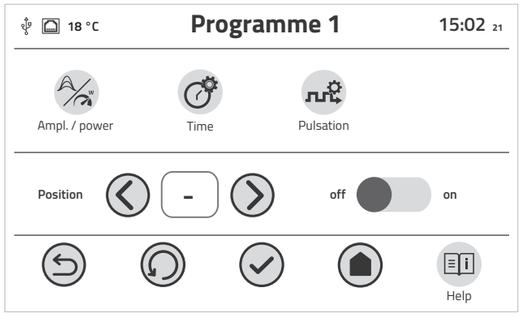
Selectable time settings: Timer (countdown) by setting the sonication time or continuous operation (up to 99 h : 59 min : 59 s). In continuous mode, the elapsed time is displayed, while the remaining time is displayed in timer mode.





Pulsation

For safe sonication of temperature-sensitive samples, the pulse interval can be customised in 0.1-s-steps. The desired sonication duration and the pause can be set independently of each other in the range of 0.5–600 s.

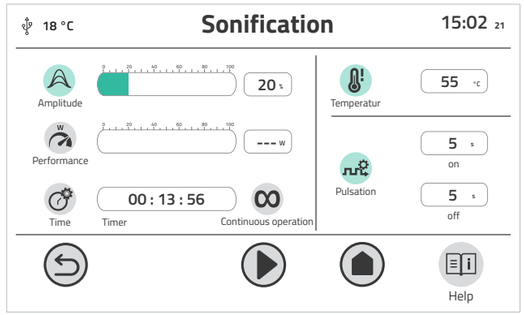


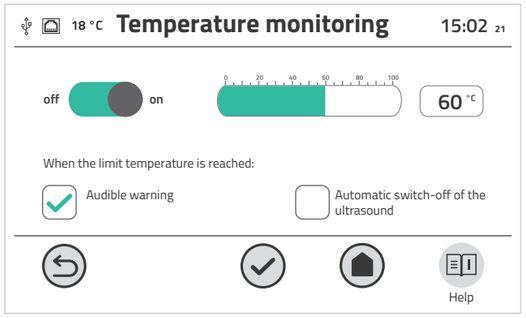
Programme memory

Save recurring processes as a programme to start them quickly and easily at the touch of a button. Up to 8 programmes can also be combined and played automatically one after the other in any order.

Process display

Display and control of all set parameters of the current programme during operation, including the remaining running time or elapsed time.





Temperature monitoring

The optional TM 5000 temperature sensor ensures constant monitoring of the sample temperature. If required, a warning signal appears when the limit temperature is reached or the ultrasound is switched off directly.

Help

If an error occurs, it is shown on the display. Help screens provide step-by-step instructions on how to solve the problem.