Touch Screen Ultrasonic Cell Disruptor 100-2000 W, 20 kHz Probe Sonicator, 0.5-3000 mL

Model
MSUSCG-100TSWISS,MSUSCG-200TSWISS,MSUSCG-350TSWISS,MSUSCG-550TSWISS,MSUSCG-750TSWISS,MSUSCG-1000TSWISS,MSUSCG-1500TSWISS,MSUSCG-2000TSWISS | Brand **Master Science**







The Master Science Touch Screen Ultrasonic Cell Disruptor is a probe-type ultrasonic processor for laboratory sample preparation. Working at 20 kHz, it breaks up cells, bacteria, viruses and tissues, assists extraction, and speeds up dissolution and chemical reactions such as synthesis.

KEY HIGHLIGHTS

- Hands-off tuning
- Stable amplitude
- Wide volume range
- Repeatable methods

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

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Overview

Eight models cover 100 W to 2000 W and sample volumes from 0.5 mL up to 3000 mL. Automatic resonance and power control, automatic amplitude compensation and a 7-inch colour touch screen keep operation simple and output steady as the load changes.

> For mechanical homogenizing, see our High-Shear Laboratory Homogenizer alongside the Touch Screen Ultrasonic Cell Disruptor.

Key Benefits

Hands-off tuning
Automatic resonance and power control remove manual energy adjustment.

Stable amplitude
Automatic amplitude compensation keeps probe output constant as the load changes.

Wide volume range
Eight power levels cover 0.5 mL to 3000 mL.

Repeatable methods
10 stored programs and 1% power steps.

Technical Specifications

GENERAL	
Brand	Master Science
Model Number	MSUSCG-100TSWISS,MSUSCG-200TSWISS,MSUSCG-350TSWISS,MSUSCG-550TSWISS,MSUSCG-750TSWISS,MSUSCG-1000TSWISS,MSUSCG-1500TSWISS,MSUSCG-2000TSWISS
SKU	MSUSCG-100TSWISS,MSUSCG-200TSWISS,MSUSCG-350TSWISS,MSUSCG-550TSWISS,MSUSCG-750TSWISS,MSUSCG-1000TSWISS,MSUSCG-1500TSWISS,MSUSCG-2000TSWISS
Capacity Range	**100 W: 0.5-80 mL; 200 W: 2-150 mL; 350 W: 5-250 mL; 550 W: 10-400 mL; 750 W: 20-800 mL; 1000 W: 20-1000 mL; 1500 W: 50-2000 mL; 2000 W: 100-3000 mL**
Standard Horn Tip Diameter	3, 6, 8, 13, 16, 13, 20, 25 mm (100 W to 2000 W)
Timer	1 s to 99 h 99 min 59 s
Pulse On/Off	Adjustable from 1 s to 99 h
Operation Modes	Pulse, timed, continuous
Transducer	PZT piezoelectric ceramic, 44-73 mm diameter

POWER	
Models and Power	100, 200, 350, 550, 750, 1000, 1500, 2000 W (220 V, 50 Hz)
Nominal Frequency	20 kHz
Power Regulation	1-100% in 1% steps

DISPLAY & DATA	
Program Memory	10 sets of operating data
Display	Colour touch screen, 800 x 480

DIMENSIONS & WEIGHT	
Generator Dimensions	370 x 265 x 225 mm

SAMPLE PREPARATION ISSUES IT ADDRESSES	
Inconsistent sonication between runs	Amplitude compensation and stored programs keep conditions steady.
Long continuous runs are hard to control	Pulse mode with adjustable on and off times.
Different volumes need different setups	Interchangeable horns for 0.1 mL to 3000 mL.
Manual tuning is tedious	Automatic resonance tracking.

Applications

The Touch Screen Ultrasonic Cell Disruptor is used for

Disruption of cells, bacteria, viruses and tissues Extraction from natural materials Accelerating dissolution Speeding up chemical reactions and synthesis Nanomaterial and chemical industry sample preparation

Ultrasonic System

- 20 kHz piezoelectric transducer
- Automatic resonance point tracking
- Automatic amplitude compensation
- Overload protection with self-check

Control

- 7-inch colour touch screen
- Process timer from 1 s to 99 h
- Pulse on/off timing from 1 s to 99 h
- Power 1-100% in 1% steps
- Cumulative working time display
- 10 stored programs

Probes

- Standard horn supplied with each model
- Optional horns from 2 mm to 30 mm for different volumes

Standard Accessories Included

- Generator with 7-inch touch screen
- Transducer
- Standard horn for the selected model

Optional Accessories

- Additional horns: 2, 3, 6, 8, 10, 13, 16, 18, 20, 25, 30 mm (by model)