

Sonifier® SFX150 Cell Disruptors and Homogenizers

The Sonifier® SFX150 is part of the new lineup of Sonifiers from Branson, designed to bring the industry's most advanced sample-processing capabilities to your laboratory. Geared toward low-volume samples ranging from 0.2 to 150 mL, the Sonifier SFX150 delivers up to 150 watts of power. And at 40 kHz, it's quiet enough to operate on a lab bench without a sound enclosure.

Because it is available with either a conventional or a handheld converter, you can use the SFX150 in a stack configuration to process longer-duration samples, or process samples quickly by hand using the comfortable, ergonomically-designed handheld converter.

- **Handheld Converter.** Branson's exclusive handheld converter is designed with the user in mind. The handheld converter offers an ergonomic grip for comfort and control, and a recessed pushbutton and LED indicator for assured operation.
- **Energy Mode.** In Energy Mode, the SFX Series power supply manages the processing cycle to deliver a precise, user-determined input of ultrasonic energy (measured in joules), either continuously or in individual pulses. The SFX Series automatically compensates for any variability, extending or shortening the cycle as needed to deliver the precise energy output.
- **Process Monitoring.** In operation, Sonifier SFX Series monitors ongoing processes on a scrollable, digital screen, providing continuous updates of key variables including power level, energy usage, sample temperature, and experiment progress.
- **Sample-Processing Programs.** For assured repeatability and precision on a greater scale, the SFX Series enables users to create and store up to 20 sample-processing programs. Program parameters include continuous or pulsed ultrasonics; time, energy, or temperature control modes; pulse on-time/energy, off-time and total on-time/energy; or amplitude as a percentage.



Sonifier[®] SFX150

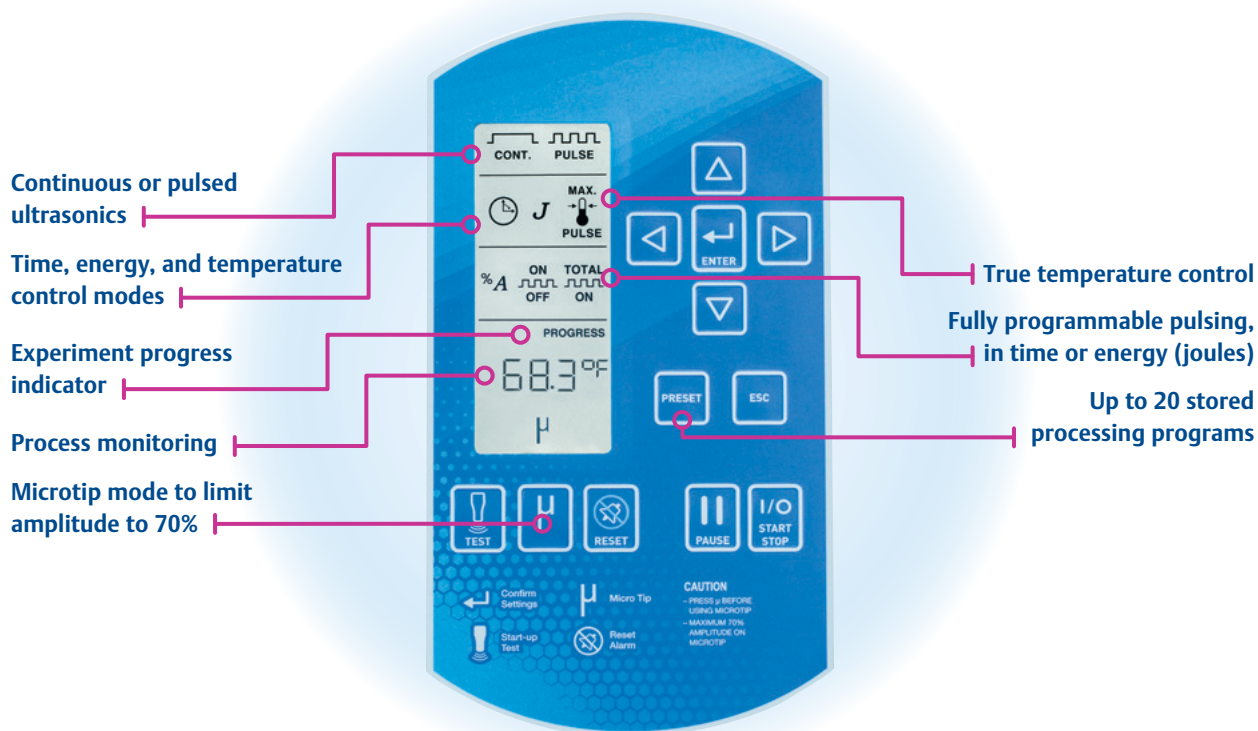
Features

- 40 kHz ultrasonics for quiet tabletop operation.
- Sample sizes from 0.2 to 150 mL.
- High-efficiency, handheld and stand-mountable converters require no internal cooling.
- Scrollable, multifunction screen with pushbuttons.
- Continuous or pulsed ultrasonics.
- Amplitude control range from 10 to 100%.
- Microtip mode limits amplitude to 70% to extend tool life.
- Control modes include time, temperature, and energy.
- True temperature control manages sample temperature within user-specified limits (requires separate temperature probe).
- In-process feedback displays experiment progress together with key variables such as power level, energy usage, and elapsed time.
- Advanced energy control mode delivers precise energy input in continuous or pulse modes.
- Programmable parameters include continuous or pulsed ultrasonics; time, energy, or temperature* control modes; pulse on-time/energy, off-time and total time/energy; or amplitude as a percentage.

*requires optional temperature probe

Handheld Converter





Sonifier® SFX Series: Tips and Accessories

The Sonifier SFX Series can be equipped with a wide range of specialized tools and accessories to meet specific application requirements.



Cup Horn: This specialized horn permits high-intensity sound to be applied to multiple samples without direct horn contact. 3.0" diameter only.



Microtips: These smaller, high-intensity tips are ideal for processing smaller samples in Eppendorf vials or similar vessels. Sizes range from 3/32" to 1/4".



40 kHz Traditional Converter: Used in a stand or acoustic sound enclosure, the traditional converter is designed for longer-duration samples.

The Branson Advantage

Rosette Cell: Branson's Rosette Cell provides a unique flow pattern of substances for exposure to ultrasonic energy during circulation through the cell. When it is immersed in a cooling bath, the enlarged glass surface area and circulation through the side arms provide an efficient means of heat exchange.



Acoustic Enclosure: Operating a Sonifier SFX Series in the Soundproof Enclosure can minimize mechanical noise produced by ultrasonic processing. The sturdy cabinet is lined with waterproof, sound-absorbing material, which is impervious to most solutions or laboratory reagents and can be cleaned easily. A fully-transparent door enables viewing of the process while limiting the noise to an acceptable level.



Stand and Converter Holder: The support stand with stainless steel rod accommodates Branson's 40 kHz traditional converter. The converter holder supports the ultrasonic stack (converter and microtip) and is adjusted easily to properly position the microtip in the sample.



Ordering Information

Model	Part Number	Input Power	Output Power	Dimensions	Weight
SFX150 w/Handheld Converter	101-063-1097R	240 V CE	150 watts	12.5" (318 mm) L x 7.5" (191 mm) W x 9.25" (235 mm) H	14 lbs.
SFX150 w/Traditional Converter	101-063-963R	240 V CE			

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BRANSON



Sonifier® SFX250 and SFX550 Cell Disruptors and Homogenizers

Sonifier® SFX250 and SFX550

Overview

The SFX250 and SFX550 are part of the new SFX Series of Sonifiers from Branson, designed to bring the industry's most advanced sample-processing capabilities to your laboratory. The SFX Series brings a new level of ease, precision, and repeatability with advanced energy and temperature control modes, process monitoring capabilities, and programming features.

Sonifier SFX250 Model

- 250 watts of power at 20 kHz
- Processes samples from 0.2 up to 500 mL
- Includes power supply, converter and 1/2-inch disruptor horn

Sonifier SFX550 Model

- 550 watts of power at 20 kHz for high-volume processing
- Processes samples from 0.2 to 1000 mL
- Includes power supply, converter, and choice of 1/2- or 3/4-inch disruptor horn

Sonifier SFX250 and SFX550 Features

- Advanced energy control mode delivers precise energy input in continuous or pulse modes.
- True temperature control manages sample temperature within user-specified limits (requires separate temperature probe).
- Control modes include time, temperature, and energy.
- Continuous or pulsed ultrasonics.
- High efficiency, stand-mountable converter requires no internal cooling.
- Scrollable, multi-function screen with pushbuttons.
- In-process feedback displays experimental progress together with key variables such as power level, energy usage, and sample temperature.
- Microtip mode limits amplitude to 70% to extend tool life.
- Amplitude control range from 10 to 100%.
- Powerful 20 kHz ultrasonics.
- Up to 20 stored programs. Programmable parameters include continuous or pulsed ultrasonics; time, energy, or temperature control modes; pulse on-time/energy, off-time and total on-time/energy; or amplitude as a percentage.



Ultimate Control and Ease of Use

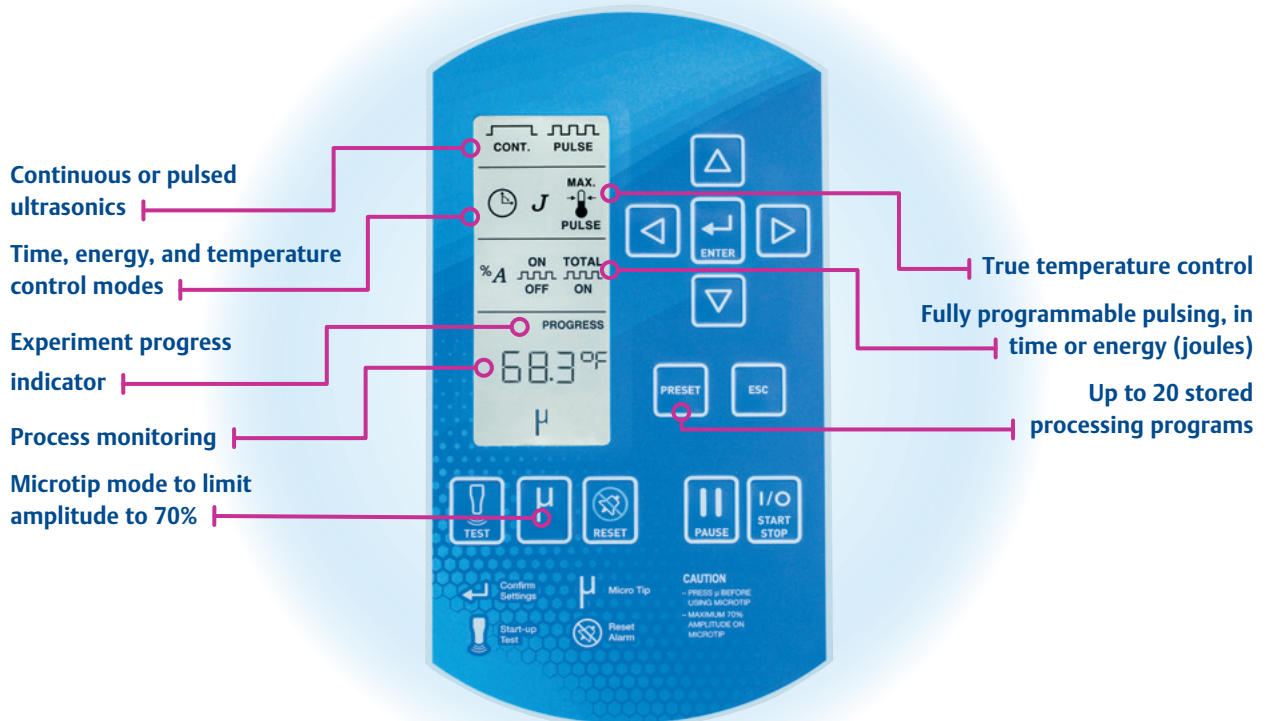
All SFX Series Sonifiers feature a digital, intuitive interface flanked by easy-to-use pushbuttons. The screen and buttons provide one-touch access to all control parameters and modes of operation.

Advanced control modes. In Energy Mode, the SFX Series power supply manages the processing cycle to deliver a precise, user-determined input of ultrasonic energy (measured in joules), either continuously or pulsed. The SFX Series automatically compensates for any variability, extending or shortening the cycle as needed to deliver the precise energy output.

True temperature control. (Requires separate temperature probe.) With true temperature control, the SFX Series power supply maintains the temperature of the sample to within a user-specified range, automatically adjusting the ultrasonic pulse length to regulate the temperature rise and prevent overheating.

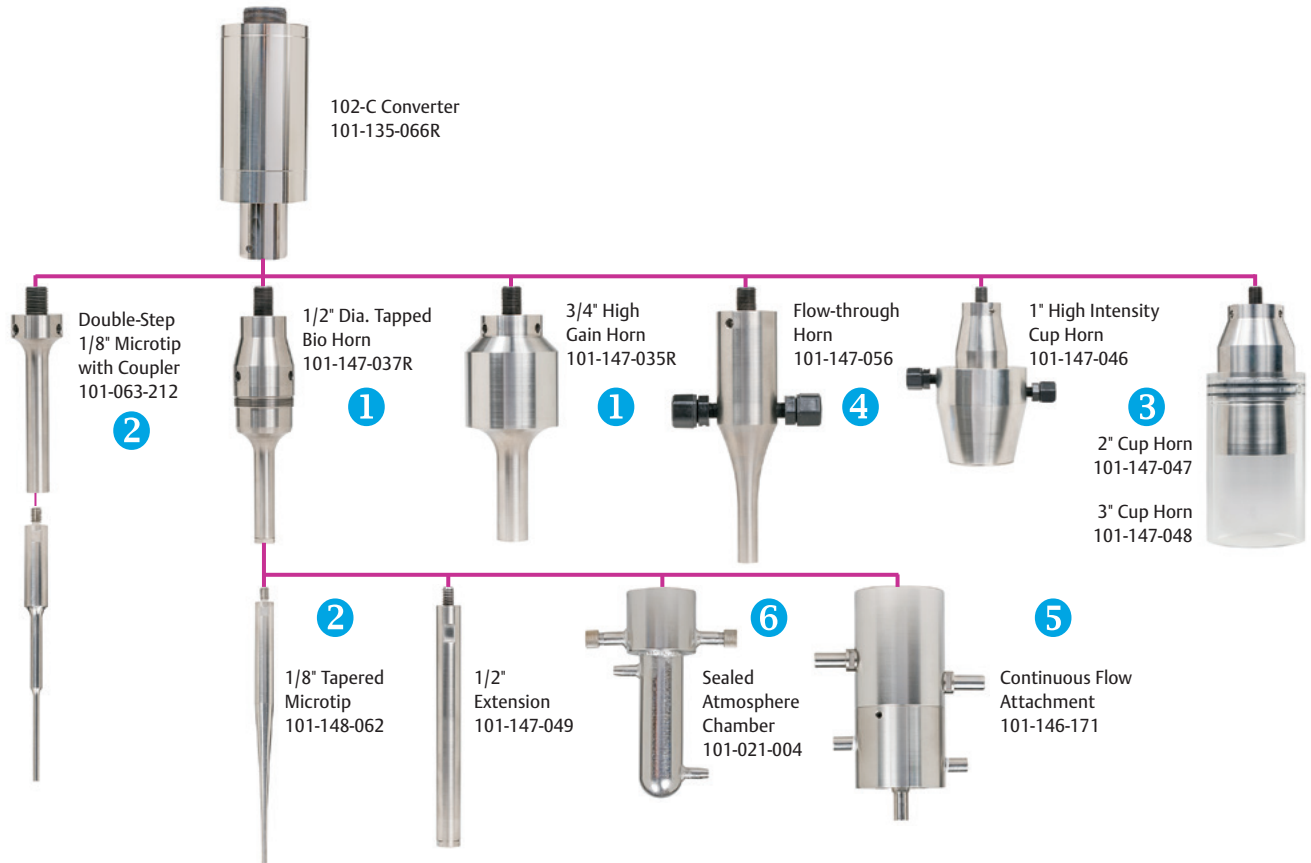
Sample-processing programs. For assured repeatability and precision on a greater scale, the SFX Series enables users to create and store up to 20 sample-processing programs. Program parameters include continuous or pulsed ultrasonics; time, energy, or temperature control modes; pulse on-time/energy, off-time, and total on-time/energy; or amplitude as a percentage.

Process monitoring. In operation, Sonifier SFX Series monitors ongoing processes on a scrollable, digital screen, providing continuous updates of key variables including power level, energy usage, sample temperature, and experiment progress.



Sonifier SFX Series: Tips and Accessories

Sonifier SFX Series can be equipped with a wide range of specialized tools and accessories to meet specific application requirements.



- 1 Disruptor horns:** These horns are design to process a wide variety of applications and are available in standard sizes ranging from 1/2" to 1" in diameter.
- 2 Micro tips:** These smaller, high-intensity tips are ideal for processing smaller samples in Eppendorf vials or similar vessels. Available in stepped or tapered designs, with sizes ranging from 1/8" to 1/4".
- 3 Cup horn:** These specialized horns permit high-intensity sound to be applied to multiple samples without direct horn contact. Available in 2.0" or 3.0" diameters (3.0" for SFX550 only).
- 4 Flow-through horn:** These horns offer the ability to pass a process liquid through an intense energy field within the horn itself. Dual ported horns permit the emulsification of two dissimilar liquids in controlled, continuous proportions.
- 5 Continuous flow attachment:** This temperature-controlled chamber permits continuous processing of a flowing liquid through a high-intensity ultrasonic field.
- 6 Sealed atmosphere treatment chamber:** These specialty horns have been developed to handle noxious or hazardous samples while isolating them from incidental contact or to contain reactants for metric evaluation.



Rosette Cell: Branson's Rosette Cell provides a unique flow pattern of substances for exposure to ultrasonic energy during circulation through the cell. When it is immersed in a cooling bath, the enlarged glass surface area and circulation through the side arms provide an efficient means of heat exchange.



Acoustic Enclosure: Operating a Sonifier® SFX Series in the Soundproof Enclosure can minimize mechanical noise produced by ultrasonic processing. The sturdy cabinet is lined with waterproof, sound-absorbing material, which is impervious to most solutions or laboratory reagents and can be easily cleaned. A fully-transparent door enables viewing of the process while limiting the noise to an acceptable level.



Stand and Converter Holder: The support stand with stainless steel rod accommodates Branson's 20 kHz converter. The converter holder supports the ultrasonic stack (converter and horn) and is easily adjusted to properly position the horn in the sample.

Ordering Information

Model	Part Number	Input Power	Output Power	Dimension	Weight
SFX250 with 1/2" Horn	101-063-965R	120V	250 Watts	12.5" (318mm) L x 7.5" (191mm) W x 9.25" (235mm) H	14 lbs
SFX250 with 1/2" Horn	101-063-966R	240V CE			
SFX550 with 1/2" Horn	101-063-969R	120V	550 Watts	12.5" (318mm) L x 7.5" (191mm) W x 9.25" (235mm) H	14 lbs
SFX550 with 1/2" Horn	101-063-971R	240V CE			
SFX550 with 3/4" Horn	101-063-968R	120V	550 Watts	12.5" (318mm) L x 7.5" (191mm) W x 9.25" (235mm) H	14 lbs
SFX550 with 3/4" Horn	101-063-970R	240V CE			

Accessories Ordering Information

Catalog No.	Description
200-060-022R	Temperature probe
101-063-275	Acoustic enclosure (20-25 dB reduction)
101-147-037R	1/2" diameter stepped disruptor horn
101-147-043	3/4" disruptor horn with solid tip
101-147-035R	3/4" diameter high-gain horn
101-147-044	1" stepped, solid horn
101-146-171	Continuous flow attachment
101-147-046	Cup horn, flow-through, 1"
101-147-047	Cup horn, flow-through, 2" (requires adapter stud 100-098-249)
101-147-048	Cup horn, flow-through, 3"
100-098-249	Adapter stud
101-148-013	Replacement tip for 1/2" tapped horn (1/4-20 thread)
101-147-049	Extension 1/2" diameter with replaceable tip 101-148-013

Catalog No.	Description
101-148-062	Tapered 1/8" diameter microtip for 1/2" tapped horn
101-148-069	Tapered 3/16" diameter microtip for 1/2" tapped horn
101-148-070	Tapered 1/4" diameter microtip for 1/2" tapped horn
101-063-212	Double step 1/8" diameter microtip with coupler for direct attachment to the converter
101-147-050	Double step microtip, coupler portion only
101-148-063	Double step microtip, microtip portion only
101-063-1108	Lab stand with 1/2" rod
101-063-1110	20 kHz converter mount for 1/2" lab stand
101-135-066R	20 kHz 102-C converter
101-118-039	Spanner wrench (qty. 1 – requires 2)

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BRANSON



Bransonic® Baths

The simple, reliable solution to quality precision cleaning



EMERSON
Industrial Automation

BRANSON: A Recognized Leader in Ultrasonics Worldwide



For over 60 years, Branson has been the leader in the development of advanced ultrasonics and its application to a variety of uses.

Branson is recognized worldwide as an innovator, pioneering the use of the rugged, reliable 40 kHz transducers in sweep frequency baths.

Brasonic® baths are used widely in laboratory, light industrial, dental, medical, and specialty applications:

Laboratory/medical/special utilities: Cleaning of instruments or special parts, metal components, glass and ceramic.

Industrial/basic cleaning: Removing soils, contaminants, oils, and compounds from light industrial parts, electronics, jewelry, etc.

Beyond cleaning: Sample preparation; degassing liquids, mixing and homogenization, dissolving solids, lysing and dispersion of particles.

The Branson reputation for impeccable quality and reliable ultrasonics is unsurpassed. Our global network of distributors ensures that you will have the machinery, accessories, supplies, and support you need to meet your basic cleaning needs for the most demanding applications.



Branson® Ultrasonic Baths

Branson's innovations include our signature elevated control panel, positioned above and behind the bath to avoid damage and increase operator safety. And with our unique sweep frequency technology to eliminate standing waves and create even cleaning, and our pioneering 40 kHz industrial transducers, Branson ultrasonic baths have been the industry standard for quality, reliability, and precision.

The CPX Series

Advanced technology and digital performance in our most robust, versatile, ultrasonics baths.

The CPX Series features a variety of technological enhancements:

- **Constant activity/power tracking** automatically maintains the same ultrasonic power supply by adjusting for changes in liquid level and temperature caused by a light or heavy load. This helps ensure more uniform cleaning and consistent performance, even with multiple users or when bath conditions change.
- **Assures uniform, precision cleaning** over the entire surface, and consistent cavitation that reaches and cleans even tiny crevices on the parts.
- **High/low power control** adjusts the acoustic energy in the bath. It can be set at 100% power for normal or heavier loads, or at 70% power for lighter and more delicate applications, helping to protect delicate components from potential damage.
- **Temperature settings** are available up to 69C/156.2F as either Celsius or Fahrenheit, and can be programmed through the front panel for easy access and monitoring. Plus provides for convenient re-calibration when needed onsite.
- **High-temperature alarm/auto shut-off** for added safety.



Branson CPX Series

- **Continuous Time Mode** for unlimited ultrasonic time
- **Degassing and conditioning of solutions** through advanced wave modulation of up to 99 minutes also allow for a variety of sample prep applications.
- **Last stored parameters are recalled** when unit is turned back on

The CPX extended degassing capabilities (up to 99 minutes) allow for “beyond cleaning” applications for sample preparation such as mixing and homogenization, dissolving solids, cell lysing, and particle dispersion.

The CPX Series Features

CPX is completely programmable, so engineers can choose temperature, start, and stop times for “set-it-and-forget-it” operation.

Temperature can be set for either Fahrenheit or Celsius up to 69°C/156.2°F.

Degassing periods of up to 99 minutes also allow for various sample prep applications.

Digital timer allows for continuous ultrasonic operation up to 99 minutes.

Ultrasonic power tracking maintains steady, consistent activity in the bath when conditions change.

High/low power control provides safer cleaning of delicate components. 100% power for normal or 70% for delicate applications.



The M Series

The value leader for quality and reliability.

The Bransonic M series includes two simple-to-use models: the M and MH Series. Both series are designed for basic yet effective cleaning, with set-it-and-forget-it mechanical timers. MH Series units also offer a heating option. And both series are excellent for use in a variety of applications:

- Laboratories and dental offices
- Electronic components
- Industrial parts
- Jewelry and precious metals



Bransonic M Series

Precision cleaning for all types of applications

Bransonic baths are in use worldwide, providing simple, effective results for the ultimate in ultrasonic cleaning.

Laboratory

Thoroughly removes blood, protein, and contaminants on such tools as glassware, lenses, instruments, and precision components.

Medical and Dental Labs

Offers a safer, more consistent way to clean dental and medical instruments in combination with sterilization.

Industry

Deep cleans to remove dirt, grease, wax, and oils from industrial parts and components of all kinds, including steel, light and nonferrous metals, plastic, and glass.

Electronics

Completely removes flux and contaminants from such precision components as PC boards, SMDs, quartz crystals, capacitors, and many others.

Jewelry

Thoroughly cleans and restores brilliance to watches, chains and charms, settings, coins, fine jewelry, and clockworks.

Optical

Ensures precision cleaning of optics.

Beyond cleaning

Bransonic ultrasonic cleaners also can be used for sample preparation; degassing liquids, mixing and homogenization, dissolving solids, lysing and dispersion of particles.

Bransonic® Solutions

Accessories

Bransonic® ultrasonic baths also can be accessorized to best suit your specific cleaning or laboratory needs. Choose the appropriate suspension method for your applications, solid or perforated tray, basket, support rack, and beaker holder to customize each unit as needed.

The Right Cleaning Solution

It's the most important decision you can make. A large variety of excellent formulations are available, designed for specific applications. Proper selection is crucial for acceptable cleaning activity and to preclude undesirable reactivity with the items being cleaned.



Bransonic® Baths Feature Finder



Feature	M Series	MH Series	CPX Series	CPXH Series
Timer	60-minute Mechanical	60-minute Mechanical	99-minute Digital	99-minute Digital
Tank Capacity .5 g to 5.5 g / 1.9 to 20 liters	•	•	•	•
Cover	•	•	•	•
Continuous Mode	•	•	•	•
Sweep Frequency 40 kHz Transducer	•	•	•	•
Heater		•		•
Dual Power			•	•
Power Tracking			•	•
Degas Wave Modulation			•	•
°C or °F Temp			•	•
Auto Ultrasonics Activation			•	•
High-temp Alarm			•	•
Front Panel Auto Temp Calibration			•	•
Operating Parameters Stored and Saved			•	•

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