



ULTRASONIC POWER
CORPORATION

Made in the U.S.A.

Spec 17-1091
10/3/17

Custom Model 108x18x30 – 301 gallon Industrial Ultrasonic Cleaning System with Sonic Touch® “smart” control system with filtration, sparger and weir

Description:

*ULTRASONIC POWER CORPORATION, **Model 108x18**, self-contained, ultrasonic cleaning system. Built for long term, continuous, reliable, precision cleaning with the following features:*

- Internal working dimensions of 18 inches (FtoB) x 108 inches (LtoR) x 30 inches deep (301 gallons)
- Internal overall tank dimensions of 24 inches (FtoB) x 108 inches (LtoR) x 33 inches deep (370 gallons)
- Overall dimensions approximately 31 inches (FtoB) x 138 inches (LtoR) x 48 inches high
- Heavy duty, 12 gauge, 316L stainless steel tank, double TIG welded for durability
- Double wall all stainless steel construction- superior to painted steel
- Six heavy duty adjustable stainless steel legs
- 8,000 Watts average power (16,000 Watts peak)
- Sixteen (16), 500W, 6”x28” immersible “**Vibra-bar®**” transducers bulkhead mounted to sides of tank (eight per side),
- Each immersible contains, 6 **Vibra-bar®** transducers and 12 piezoelectric (PZT) stacks permanently bonded to radiating surface
- “**Simultaneous Multi-Frequency®**” ultrasonic cleaning power
- 9,000 Watts of heat (two 4,500W immersion heaters, one on each end) controlled by an adjustable thermostat- will heat tank to 165°F
- Low liquid level protection- heating system and sonics
- Recirculation pump and filter system - 20 inch, 20 micron, polyspun filter, polypropylene housing, 8GPM nominal pump (3MD-HC), polypropylene pump pre-filter- extends the life of each detergent mixture
- Sparger and weir system for removing surface oils and contaminants for cleaner parts, includes weir bypass valve for flexibility.

*Eight (8) 1000 Watt Advanced, Patented, **Model 5400** ultrasonic generators, include the following features:*

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- Modulation Sweep Control - 38-42 kHz (300-1000 Hz sweep rate) - provides the ability to perform in a variety of aqueous and semi-aqueous cleaning chemistries.
- **Patented constant power circuit design monitors power output continuously adjusting input power for controlled consistency - US patent 5,895,997**
- **Patent pending Transducer Status Indicator (TSI)** - transducer monitoring circuit that indicates via LED's the operational condition of the transducers connected to it.
- **Overheat Protection System**- protects generator from high temperatures caused by overheating due to air blockage or fan failure- LED indicator for quick reference.
- **Power Intensity Control** - combined with “**Simultaneous Multi-Frequency®**”, extends the equipment cleaning ability to very fragile items such as semiconductor devices, wafers and delicate glass parts
- **Automatic short / open protection** – generator is protected if the output is either "short circuited" or "open circuited"
- **Automatic frequency / load control**- provides uniform and reliable operations under all conditions of loading
- **1000 watts average output power, 2000 watts peak power**
- Includes RFI (radio frequency interference) filter - assures RFI suppression and protection against electrical shock
- High efficiency generator circuitry
- Meets FCC requirements
- On/off switch & red indicator light
- **PLC control connector**- 15 pin connector on back of generator providing the communication functions with the Sonic Touch® panel

Sonic Touch® “smart” control panel includes:

- Capacitive touch control technology
- Water proof surface
- Digital timer- Countdown Timer is used to run the ultrasonic cleaner for a desired period of time (0 to 9h, 59m, 59s)
- Digital clock- Indicates current time (24 hour clock) or time left on countdown timer
- Digital temperature control- Indicates current tank temperature in °C / °F – standard model can operate to 160°F – please ask for high temperature option if higher temperatures are required
- Digital 7 day timer- for programming heating system On/Off time
- Main power control- button will illuminate when cleaner is ON
- Back up memory- retains settings if power is interrupted
- Pump and filter control for filter system

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- Low liquid level indicator- senses low level it will illuminate this indicator as well as disabling the ULTRASONICS, HEATER and PUMP
- Full time sonic On control- overrides the timer
- Touch sweep intensity control- 10% increments from 0 to 100%. LED indicators correspond with intensity level
- Panel Lock setting- locks out controls (except main power) to prevent undesired changes
- System over-temperature protection- - removes power if dangerous temperature situation occurs
- **SOVI**® (Sonic Output Validation Indicator) diagnostic system- validates operating condition of the system. Error code indicates fault.
- Power requirement **480 VAC**, three phase, approximately 22A
- Power cord, 14 feet long, customer to provide plug
- 3" drain with heavy duty ball valve
- Includes operator manual

Options available include

- 1- Work rest- heavy duty SS rod, protects tank bottom and transducers, 250lb capacity
- 2- Brulin 815GD detergent- concentrate, 4 gallons (One case) makes 40-80 gallons

SONIC TOUCH® is Ultrasonic Power's multifunctional digital control panel which offers operators a unique, fully-integrated method for controlling and viewing all system functions like time, temperature, 7-day heat time, pump and filter, ultrasonic intensity, low liquid level and more. It uses state-of-the-art capacitive touch technology that is completely water-proof, easy to operate and backward compatible with all future console systems.



SOVI® (Sonic Output Validation Indicator) is an "on board" diagnostic system which uses software and various sensing circuits to monitor functions like transducer status, generator status and tank over-temperature. SOVI® validates operations and displays an error signal if a problem should occur. This is extremely useful for processes that require constant operational status updates.

Ultrasonic Transducers:

All ULTRASONIC POWER CORPORATION systems feature our unique "Simultaneous Multi-Frequency" utilizing "Vibra-Bar" transducers. We permanently attach our "Vibra-Bar" transducers to the underside of the radiating surface using a proprietary process that insures long term reliability. This bond is guaranteed for ten (10) years. The unique construction of the "Vibra-Bar" provides complex

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resonance of 40-90 kHz, which produces ULTRASONIC POWER CORPORATION'S patented "Simultaneous Multi-Frequency®", thus virtually eliminating undesirable standing waves.

Ultrasonic Generators:

Each of ULTRASONIC POWER CORPORATION'S generator features our patented modulation sweep and power intensity control technology. The power intensity control maximizes the cleaning unit's flexibility to clean small delicate items or large bulk items. Our generators use solid state circuitry backed by 20 years of field proven reliability. ULTRASONIC POWER CORPORATION'S generators provide consistent, predictable ultrasonic cleaning power throughout the cleaning bath. This proven design provides a constant output power even as the solution temperature or load volume increases.

The Ultrasonic Power Corp industry-leading warranty is attached. The warranty is your guarantee of the best quality, the very best. And we stand behind it!

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