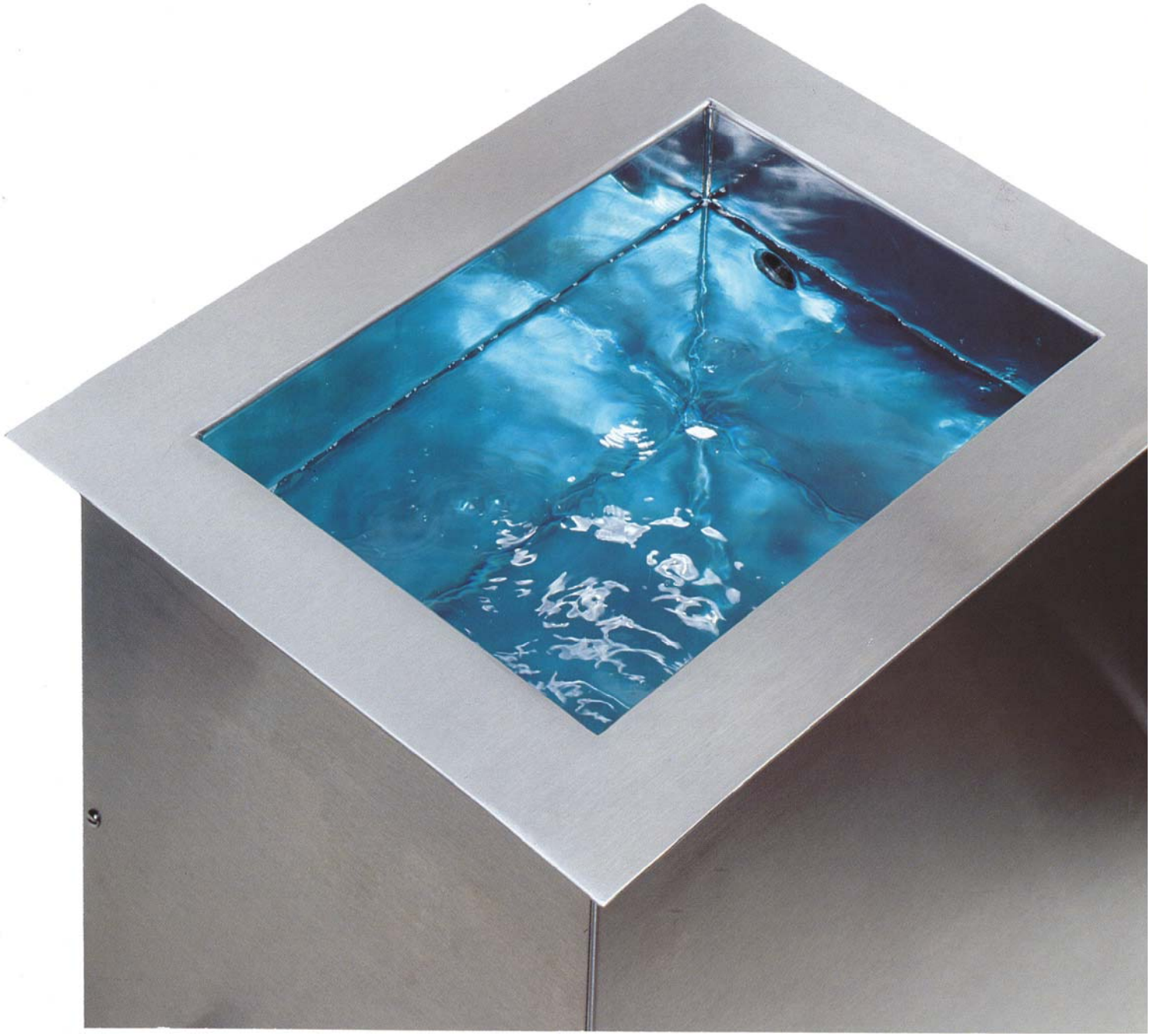
MDG-142

FUSION

Ultrasonic Cleaning Equipment for Ultimate Cleaning Power



The Ultrasonic Cleaning Process

When ultrasonic energy is introduced into a cleaning solution, cavitation, the foundation of ultrasonic cleaning occurs. Ultrasonic energy causes alternating patterns of low and high pressure phases. During the low pressure phases, minute bubbles – or vacuum cavities form. During the subsequent high pressure phases, cavitation takes place, where the bubbles implode violently.

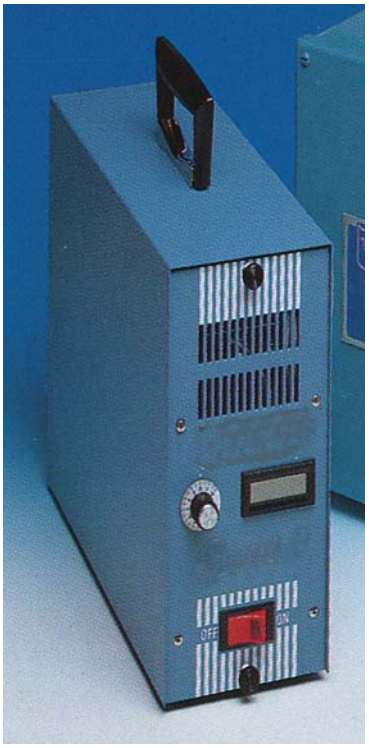
Cavitation provides an intense scrubbing action that leads to unsurpassed cleaning speed when compared with simple soaking or immersion with agitation. Additionally, the bubbles are small enough to penetrate even microscopic crevices.

The Basic Ultrasonic Cleaning System

A generator, a transducer and a tank make up our ultrasonic cleaning system. The generator supplies electrical power to the transducer, which converts to mechanical energy in the form of pressure waves. Ultrasonic energy enters the cleaning solution in the tank, generating the cavitation that precision-cleans its contents.

FUZESONIC GENERATORS

Constant High-Power Output and Sweep Frequency



The FuzeSonic generator is uniquely designed to outperform other systems. It provides high power, consistency and control you can rely on day in and day out.

High Power – FuzeSonic delivers the power you need to clean stubborn contaminants. With true 500 watt power output capability and over 80% efficiency, it's the most powerful generator available.

Consistency – Superior cleaning is achieved with our constant power output feature. FuzeSonic holds power to ±5% - regardless of the changes in input voltage, tank solution depth, and loading and solution temperature that cause output fluctuations in conventional generators. Uniform cleaning throughout the tank is ensured by sweeping the generator frequency ±1 kHz, creating overlapping ultrasonic waves. This eliminates the risk of hot spots and dead zones, caused by "standing" waves produced by conventional generators.

Process Control – Amplitude control allows you to adjust the intensity of the ultrasonic power, ideal for delicate parts. Also, the optional CWF watt frequency meter measures output power and frequency to the tank, providing measurable power which can then be repeated tank after tank on a daily basis.

Reliability – Solid state circuitry has been engineered to be impervious to shorts and open circuits. A sealed generator is available for harsh environments. For maximum flexibility, you can choose from a variety of options, including duty cycle power control, remote power control and monitoring, timer and computer interface.

IMMERSIBLE TRANSDUCERS

Simultaneous Multi- Frequency

Immersibles are constructed of cavitation resistant, bright annealed, 316L stainless steel with robotically welded seams to ensure a long life. The Ceramically Enhanced Bar design consists of two transducer stacks which permit simultaneous multiple frequencies. They are available in the form of transducerized tanks and separate immersibles which are fully sealed so they can be inserted into an existing tank to convert it into an ultrasonic cleaning system. Immersible transducers are a perfect way to introduce ultrasonic energy into existing tanks. Also, the units are easily replaceable for economical repairs.

Guarantee

We guarantee defect-free workmanship and the performance reflective of state-of-the-art technology for a period of two years on generators, ten years on transducers and one year on tanks.

FuzeSonic Ultrasonic Generators

Generator Model No.	Power Output (Watts)			Max. Power Input 120V/ 50-60 Hz	Overall Dimensions W L H	Number of Plug-In Modules
	Full Wave Average	Heat Wave Average	Full & Half Wave Peak			
4G-250-3	250	125	500	3A/360W	5 ¼" x 14" x 12"	1
4G-500-6	500	250	1000	5A/600W	5 ¼" x 14" x 12"	1
4G-750-9	750	375	1500	8A/960W	10 ½" x 14" x 12"	2
4G-1000-12	1000	500	2000	10A/1200W	10 ½" x 14" x 12"	2
4G-1500-18	1500	750	3000	15A/1800W	15 ¾" x 14" x 12"	3
4G-2000-24	2000	1000	4000	20A/2400W	21" x 14" x 12"	4

Note:

- All models are 40 kHz.
- Last digit in model number indicates the number of Vibra-Bars on the unit.

Standard Features:

- Amplitude control
- Sweep Frequency

Options:

- Power intensity control – duty cycle type
- Timer: 0-30 minutes
- Other input voltages
- Nema 12 enclosure
- Sealed generator – coated and with a heat sink
- CWF watt frequency meter (generator mounted or remote)
- Adjustable sweep frequency
- Remote power control
- Single channel computer interface (power monitor and control)
- Three channel computer interface (amplitude, duty cycle, frequency control and power monitor)

Transducerized Tanks

Tank Model No. (Heated)	Fluid Capacity (Gallons)	Internal Dimensions W L D	Overall Dimensions W L H	Power Requirement (Heated Tanks)	Generator Required
4HT-710-3	3	7" X 10" X 10"	10" X 13" X 14 ½"	120V/4.2A/500W	250W
4HT-1014-6	5	10" X 14" X 10"	13" X 17" X 14 ½"	120V/8.4A/1000W	500W
4HT-1218-9	10	12" X 18" X 12"	15" X 21" X 16 ¼"	240V/8.4A/2000W	750W
4HT-1218-12	10	12" X 18" X 12"	15" X 21" X 16 ¼"	240V/8.4A/2000W	1000W
4HT-1524-12	19	15" X 24" X 14"	18" X 27" X 18 ¾"	240V/12.6A/3000W	1000W
4HT-1622-12	22	16" X 22" X 16"	19" X 25" X 20 ¾"	240V/12.6A/3000W	1000W
4HT-1622-18	22	16" X 22" X 16"	19" X 25" X 20 ¾"	240V/12.6A/3000W	1500W
4HT-1826-18	33	18" X 26" X 18"	21" X 29" X 22 ¾"	240V/16.8A/4000W	1500W
4HT-1826-24	33	18" X 26" X 18"	21" X 29" X 22 ¾"	240V/16.8A/4000W	2000W
4HT-1236-24	34	12" X 36" X 20"	15" X 39" X 24"	240V/17A/4000W	2000W

Note:

- All tanks are fabricated of bright annealed, 316L stainless steel, a highly erosion-resistant material.
- All tanks have 1" wide flange around top edge. Flange not included in overall dimensions.
- All models are 40 kHz.

Options:

- Tank cover, stainless steel
- Work baskets, stainless steel
- Water jacket
- Condensing collar
- Overflow weir
- Cove corner construction
- Ground and polished welds
- Drain valve, ball type (brass or stainless steel)
- Recirculating filter system (brass or stainless steel)
- Matching rinse tank, no transducers (heated or unheated)

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