



because clean matters.



Everything You Always Wanted To Know About L&R Ultrasonics But Were Afraid To Ask . . .

What is ultrasonics?

High frequency sound waves are used to produce more than 40,000 alternating high and low pressure waves per second. As these waves travel through our specially-formulated cleaning solution, millions of microscopic vacuum bubbles form and violently implode. This process, known as cavitation, creates a scrubbing action capable of cleaning up to 16 times more efficiently than hand-cleaning. In minutes, all dirt and foreign particles are removed from even the tiniest grooves, cracks and interior areas of the object being cleaned.

Do large machines clean better than small ones?

All L&R Ultrasonic Cleaning Systems have similar cleaning abilities regardless of the tank size. This is due to the fact that the amount of ultrasonic power generated is proportional to the tank dimensions. You will notice a difference in cleaning ability with a larger Ultrasonic Cleaning System when the size of the object(s) being cleaned becomes disproportionately smaller than the tank size. The dimensions of the tank ultimately chosen should be proportional to the size and mass of the object(s) to be cleaned. Avoid overloading the machine, which reduces cleaning efficiency and may increase cleaning time. L&R manufactures certain machines with the same dimensions that have different frequencies.

Can I use water alone in my machine?

Water should never be used alone in an Ultrasonic Cleaning System.

A cleaning solution such as our [General Purpose Cleaner Non-ammoniated](#) (or any one of our aqueous-based cleaners), when properly diluted, effectively reduces the surface tension of the solution and increases ultrasonic cavitation. This increase in cavitation enhances the overall cleaning ability of the process.

Is heat required?

The use of a heater is generally recommended for jewelry, industrial and dental laboratories. The application of heat helps soften materials such as waxes and similar compounds for a quicker cleaning cycle. These materials would ultimately be cleaned at a slower rate without using heat. It is generally not necessary to use heat in the medical fields such as dental and dermatological, as there is no measurable improvement in the cleaning ability or time when heat is applied. Remember, heat is a separate function and cannot be added to an existing machine. Therefore, if there is a possibility that the need for a heated unit may arise later, it would be wise to invest in a heated machine now.

How often does solution have to be changed?

The frequency with which you change your solutions depends on the use of your machine. For the medical field (including dental and dermatological), it is recommended to discard your solution at least once a day for instrument cleaning and after every use when performing a specialized cleaning task. This is to further reduce the chance of cross-contamination in the office or laboratory. For other industries such as jewelry, industrial and optical fields, you should change your solution when the cleaning cycle time increases and/or when the objects are no longer meeting your cleaning requirements.



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