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Ultrasonic cleaner upkeep time

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Question: My office ultrasonic cleaner does not seem to be working very well

. How can I test my unit's effectiveness? If I need to replace it, do you have any recommendations?

Answer: You can readily test the function of your ultrasonic cleaner using a simple and inexpensive process called the aluminum foil test. First, cut a piece of lightweight foil about an inch shorter than the length of the ultrasonic cleaner's chamber. The foil should be an inch or two longer than the depth of the chamber. Finally, smooth out any wrinkles in the foil.



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Fill the unit's chamber with your usual cleaning detergent. Hold the foil sheet as vertically as possible in the filled chamber without touching any sides and about an inch above the floor of the unit. Operate the unit for 30 seconds. Remove the foil and look for small indentations (pebbling), areas of dulling, or even holes. Distribution of the pebbling and other defects should be fairly even over the surface of the foil. If there are areas greater than a half-inch without damage, the unit may need repairing. Some ultrasonic cleaner manufacturers sell similar tests.

If a new ultrasonic unit is necessary, you should consider a number of factors. Cleaners come in a wide variety of sizes - from pint-sized round ones to multiple-gallon units. Larger cleaners are usually rectangular-shaped and can hold a number of stacked instrument cassettes. Most cleaners are countertop types, but some models can be set into counter tops. The result is a unit that is flush with the cabinet surface.

Several factors dictate cleaner size and shape. Does your office use instrument cassettes? How many instruments do you use on average each day? How many times each day do you wish to operate the unit?

Suspend loose instruments or those held in cassettes within the chamber, off the bottom. Placing instruments on the floor of the chamber will result in poor cleaning and bouncing could result in damage. A suspending basket or rack will properly position instruments for optimal cleaning. The lid should be in place whenever the unit is operating. Do not use the unit's heating element, if present.

Use a cleaning solution specifically designed for use in an ultrasonic cleaner. Most ultrasonic cleaner manufacturers offer detergent solutions designed for their units. Although these detergents are more expensive than ordinary dishwashing products, they last much longer and have a neutral pH, which minimizes instrument damage.

In most office situations, cleaning solutions should be replaced twice each working day. Ideally, your cleaner should have a spigot that allows draining of cleaning solution. Tipping the unit to change solution can be awkward and lead to accidents or spills and possible exposure of workers. At the end of the workday, the unit's chamber should be emptied, rinsed with water, and dried with paper towels. Follow this with disinfection of the inside surfaces of the chamber, the lid, and other accessories. Disinfectants should be tuberculocidal in 10 minutes or less.

Another method of mechanically cleaning dental instruments is an instrument washer. These washers are specifically constructed and designed for use in dental offices. Household dishwashers cannot routinely clean dental instruments. Smaller instrument washers can sit on top of a cabinet in the instrument recycling area. Larger instrument washers can insert into a cabinet or be mobile using casters. Washers can accommodate greater numbers of cassettes and instruments than ultrasonic cleaners. Washers use a series of washing and rinsing cycles, and often take an hour to complete the entire cleaning process. However, because of its size, a washer can meet an office's instrument cleaning requirements in a limited number of cycles. Because operation is completely automated, office staff can perform other duties while the washer is working. Manufacturers sell cleaning solutions specific to their units.

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