



GARY W. ERBECK, R.E.H.S., M.P.H.
DIRECTOR

COUNTY OF SANTA BARBARA ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

□ 120 CREMONA DR., STE. C • GOLETA, CA 93117
PHONE (805) 681-4900 • FAX (805) 681-4901

□ 2125 S. CENTERPOINTE PKWY, STE. 333 • SANTA MARIA, CA 93455
PHONE (805) 346-8460 • FAX (805) 346-8485

March 31, 1994

Mr. David H. Evans, President
Ultrasonic Products Incorporation (UPI)

Dear Mr. Evans:

In regards to our meeting on Monday, March 14, 1994 at UCSB, University Center, I would like to make the following comments:

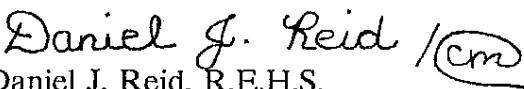
1. It appears that the Ultrasonic Automatic Dishmachine is very capable of removing all surface food debris, films, etc. from multi-use utensils (thereby rendering them "clean").
2. No caustic soaps or other types of wash aids are utilized in conjunction with the Ultrasonic process, and this could have significant beneficial impacts in reducing the amount of soaps and detergents entering the waste stream.
3. The wash cycle was set at approximately 90-100 F°. This could have significant energy savings as compared to a conventional 130-150 F° low temperature dishmachine.
4. The procedure for dishmachine operation is essentially the same as that of a conventional automatic dishmachine, and therefore would not require the foodservice employee to undergo extensive re-training.
5. It appears that the ultrasonic process is superior to that of a conventional dishmachine in regards to utensil drying. Plates removed from the unit immediately after cycle completion had little or no water adhered to the surface. This was noted in the absence of any additional drying or sheeting additive normally utilized in conventional automatic dishmachines to prevent spotting or streaking on multi-use utensils. In Santa Barbara County, this could be very beneficial due to the "aggressive, hard" nature of our drinking water supply.

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6. In our discussions, I felt that this product may have significant other uses - such as pot and pan clean-up, grease filter cleaning, and possibly the ability to wash plated metal utensils (i.e. silverplate, copper, etc.). It is unclear at this point in time if this process would be destructive to these plated materials.
7. It appears that this type of machine could also be utilized in a large volume facility, such as dining commons, hospital, etc. with a modification to the ultrasonic "dipping" tank, such that a conveyor moved the racks of utensils through the tank in a continuous feed process. I believe this would only be a time element incorporated into length of machine.
8. The machine would still be required to meet current NSF (National Sanitation Federation) Standards - specifically standard #3: in relation to final rinse temperature of 180 F° or 50 ppm of chlorinated sanitizer. But this appears feasible with current designs.

The above comments are based upon my "personal" experience in the foodservice industry for over 15 years, and my experiences with Santa Barbara County Environmental Health Services (my current position) for the last 4.5 years. If I can answer any other questions, please don't hesitate to contact me.

Sincerely,


Daniel J. Reid, R.E.H.S.
Environmental Health Specialist II

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